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ORIGINAL ARTICLES.

SIMULTANEOUS TRAUMATIVE DISLOCATION OF BOTH HIP JOINTS.

BY JOHN H. PACKARD, M.D., OF PHILADELPHIA.

[Read before the Section on Surgery and Anatomy, June, 1883.]

Simultaneous luxation of both femora is an accident of very rare occurrence. It is not mentioned at all by Malgaigne, and Hamilton barely refers to it. Among systematic writers on general surgery, Erickson merely states that it has been recorded in some instances, while Gibson[1] says "an interesting case of the kind was reported two or three years ago in one of the European journals." Gross says that three cases are recorded.

My attention was attracted to the subject by a case which occurred during my service at the Episcopal Hospital, in 1879, and I have succeeded in collecting twelve others. Even this small number present certain features which seem to me to warrant me in placing them together, for the purpose of drawing some inferences in regard to the mechanism of their production, and the occasional difficulties in diagnosis which they may present.

These thirteen cases admit of division into three classes. In the first, which embraces eight out of the whole list, are those in which the head of one femur has slipped out behind the socket, so as to lie upon the dorsum ilii, or the ischium, while the other has been dislodged forward, so as to rest either on the thyroid foramen or the pubis.

The second class includes three cases, in which both femora have been luxated backwards.

Of the third class there are but two instances, the heads of the bones resting on the thyroid foramina.

CASE I.—Boisnot (*American Journal of the Medical Sciences*, October, 1867, p. 396). The patient, a robust man, æt. 40, was standing on the sidewalk awaiting the descent of a bundle of wool weighing over 100 pounds from the fourth story of a factory. He had both hands raised, his left foot somewhat advanced, and the right placed back a little and turned outward. As he stood thus the bundle became detached and fell the whole distance, striking him on the head and knocking him down on his right side.

The left femur was at once seen to be luxated on the dorsum ilii, and reduced by Reid's method, when, from the difficulty of bringing the legs together, it was noticed that the head of the right femur was on the pubis. Under chloroform, this dislocation was then reduced, also by manipulation. Perfect recovery had taken place by the twenty-eighth day.

CASE II.—Hodgen (*American Journal of the Medical Sciences*, July, 1855, p. 280. *St. Louis Medical and Surgical Journal*, January, 1855). This patient was trying to stop a pair of runaway horses, and was knocked down, the wheel passing over the sacrum, and crushing him to the ground. On examination, the left femur was found to be misplaced, its head resting probably on the spine of the ischium; the left was opposite the thyroid foramen, but not forced into it. Both luxations were reduced under ether, by extension and counter-extension. The patient was well so as to walk without assistance in two months and a half, but there was some difference in the length of the lower limbs, attributed to injury of the pelvis.

CASE III.—J. M. Warren (*American Journal of the Medical Sciences*, April, 1858, p. 563. *Boston Medical and Surgical Journal*, January 14, 1858). In this case the patient was crushed under a falling house, being struck in the back as he was endeavoring to escape. The right thigh was found to be luxated, the head of the bone being in the thyroid foramen. Reduction was effected by means of pulleys. The left limb was next examined, and presented all the signs of dislocation upon the dorsum ilii; slight crepitus was also perceived. Extension being made, the head of the femur went into its place, but at the same moment a crack was heard, and it soon became evident that fracture had taken place.

In spite of an attack of congestion of the lungs, there having been also fracture of one or two ribs, the patient went out of the hospital well at the end of two months.

CASE IV.—Mr. Pollard (St. Bartholomew's Hospital Reports, vol. viii., 1872). A man æt. 53 was stooping down, when a mass of earth fell upon his back, forcing him forward and burying him.

The left hip was found to be dislocated, the head of the femur on the dorsum ilii, the right with the head in the thyroid foramen. Under chloroform the former was reduced by manipulation only; the latter by manipulation, with extension.

The accident happened on the third of May, but the patient was not well until the sixteenth of July.

CASE V.—Allis (Trans. of Pennsylvania State Med. Society, 1879), records the case of a colored man, aet. 42, injured by the caving in of some earth,

[1] "Institutes and Practice of Surgery," 1850. Vol. i., p. 359.

used as ship's ballast, upon him. He thought he was in the act of stooping when the earth fell, striking him upon the back in the region of the loins and pelvis. Seventy-eight days afterward luxation of the head of the right femur upon the dorsum ilii was detected. Some days later it became clear that the left hip was the seat of dislocation upon the thyroid foramen.

CASE VI.—This was my own case, which, as already said, occurred in 1878. On the 23d of October, in that year, there was a very violent storm of wind and rain in Philadelphia; and the patient, a German, aet. 40, finding his house rocking, started to run out. As he reached the door the house fell, and he was caught in the ruins. Being brought to the Episcopal Hospital, it was found that he had sustained a luxation of the head of the right femur into the thyroid foramen, and of the left upon the dorsum ilii. By simple flexion and adduction, the knee being at the same time pushed downward, the head of the right femur was replaced in the socket by Dr. Harvey, the resident surgeon. On my visit an hour or two afterward I easily reduced, by Reid's method, the left hip, which had presented the usual signs. The case did perfectly well, the man being able to walk about in a few days. He was, however, retained in the hospital for five or six weeks on account of a compound fracture of the right arm, sustained at the time of his other injuries.

CASE VII.—W. O. Roberts (*Louisville Med. News*, Jan. 21, 1883). This was the case of a healthy, well-developed man, aet. 62, who while stooping down was struck by a falling pile of planks and borne to the ground. "His left lower limb was abducted, semi-flexed, and measured five inches longer than the right. The right was adducted, semi-flexed, and rotated inward." It was therefore clear that the head of the right femur was on the dorsum ilii, while that of the left was in the thyroid foramen. Reduction of both dislocations was effected by Reid's method.

The patient's recovery was retarded by reason of injury sustained by the right sciatic nerve, producing a state of partial paralysis of the limb.

CASE VIII.—Schinzinger, of Freiburg (*Weiner Mediz-Presse*, Jan. 18, 1880). A man standing with his body bent forward, his hands resting on his knees, was buried beneath a mass of falling earth, leaving only his left leg exposed. On this his comrades pulled, in order to extricate him, with such force that he declared "they had pulled his leg off." His lower limbs were strongly devergent; active motion was impossible, passive limited and painful, especially on the left side.

The head of the femur could be readily felt on the pubis, and was returned to its socket without difficulty by Dr. Fritschi. Ten days afterward, as the pain and loss of motion in the right limb grew rather worse, an examination was made, and showed a sciatic luxation of that femur, which was reduced under anæsthesia.

The next three cases belong to the second category.

CASE IX.—Mr. Prichard (*Am. Journal of the Med. Sciences*, July, 1854, and *Association Med. Journal*, April 21, 1854.) A boy, aet. 15, a railway wagoner, was "doubled up" under a swiftly running truck, the body of which was only ten inches from the ground. "The knees and toes were inverted, the former closely approximating each other, while the latter rather overlapped one another. The head of each femur was distinctly felt under the glutæi, on the dorsum of the ilium."

Reduction was effected, in the right hip easily, in the left with some difficulty, the patient being under the influence of chloroform. The ultimate result is not stated.

CASE X.—Dr. Crawford, of Wilkesbarre, Pa. (*Am. Journal of the Medical Sciences*, October, 1876). The patient, a large, powerful man of about thirty, had a mass of rock fall on him from the roof of a mine in which he was at work. On examination, the head of the right femur was found resting on the dorsum ilii, that of the left in the ischiatic notch.

Reduction was effected by manipulation, with anæsthesia, and in ten days the man was able to walk.

CASE XI.—This case is derived from the catalogue of the Pathological Cabinet of the New York Hospital, p. 154, (1860), No. 310. Dislocation of both femora. Patient, a German, 27 years old, was struck, owing to the premature explosion of a blast, by a piece of rock, and received a deep lacerated wound of the arm, and contusion of the loins. He could give no intelligible account of the mode of the accident. On his admission into the hospital a few days after the injury, it was observed that he could not raise his feet, and also that there was some deformity about the left hip, but this latter, he was understood to say, was congenital. The wound in the arm remained in an unhealthy state, and by sloughing and suppuration, finally led to the patient's death, some seven months after the accident, he being confined to his bed during his stay in the hospital. Meanwhile, two months after his admission, the deformity about the hip was found to be due to a dislocation backward of the femur. An attempt at reduction was then made by pulleys, with but partial success; and in a few days the ordinary signs of dislocation into the sciatic notch returned. One month later, the right femur was found to be similarly dislocated. The autopsy showed both femora luxated backward near the sciatic notches. The head of the left femur rests on the dorsum, just above the sciatic notch; the cartilage still remains, but is very thin, while none of the bony parts of the femur are changed in structure or shape. An extensive layer of new spongy bone, perforated by numerous fenestrae, passes down from the dorsum ilii over the superior and anterior surfaces of the head and neck to the great trochanter, at which latter point alone it has become united to the femur. It thus forms a capsule for the head, and a long bridge from the trochanter to the pelvis, rendering the femur immovable. New bone, but in smaller quantity, has also been produced from the ischium in front of the sciatic notch, and aids to form a new socket for the head of the femur. The posterior ring of the acetabulum has been frac-

tured off, and there are some small, bony knobs growing from the bottom and lower border of the cavity; but otherwise the acetabulum is unchanged. On the right side, 1st, the head of the bone is more directly in the notch; 2d, there is no fracture of the acetabulum; 3d, the amount of new bone is not more than half that on the left side, and it has united with the head of the femur in several points. With these exceptions, the description of the changes on the left side may be applied, word for word, to those which exist on the right. There is bony union of a fracture of the left transverse process of the fourth lumbar vertebra, showing the blow on the loins to have been a severe one."

I have thought it better to quote this account entire, without any attempt at condensation. An earlier discovery of the luxations, if made, and reduction effected, would scarcely have influenced the result, but might perhaps have lessened the sufferings of the unfortunate man.

The remaining class consists of two cases only.

Case XII.—Sinogowitz (Eve's Remarkable Surgical Cases," p. 523). This case is quoted from the *Medical Examiner* for 1838, having been originally derived from the *Preanische Med. Zeitung*.

A sailor was sitting astride a plank floating on the water, when it was lifted suddenly by a wave in such a manner as to force his back upward against a cross-beam. Sinogowitz detected the character of the luxations at once, the head of each femur being in the thyroid foramen. Reduction was effected without great difficulty by powerful extension.

Recovery was tedious, owing to the severity of the injury to the lumbar vertebræ; the vesical and rectal sphincters were completely paralyzed for three weeks.

Case XIII.—T. C. Barker (*American Journal of the Medical Sciences*, April, 1854). The patient, a young Irishman, æt. 19, was walking across a scaffolding, when he slipped, and fell some twenty-five or thirty feet, alighting feet foremost upon a sandy bank in such a way as to force his thighs widely apart, whereby he sustained a luxation of both femora into the thyroid foramina.

Two days afterward the right femur was returned to its place by powerful extension, under chloroform.

Next day, after very great and long-continued efforts, anæsthesia being induced by a mixture of chloroform and ether, the head of the left femur was disengaged (having been driven through the obturator foramen so that it could be felt within the pelvis by the finger introduced *per anum*), and returned to its socket. Within ten days the man was walking about, and attending to his duties as a waiter on the table.

So far as my knowledge goes no other cases of simultaneous traumatic dislocation of both hips have ever been published than those now given. I am aware that Mr. Stanley did, in 1841, relate to the Royal Med.-Chirurgical Society[1] a case in which a gentleman, æt, 39, had both femora dislocated upward and backward, but this was from disease of the brain and spinal cord, not from injury. Another case, in which both femora were displaced in the same direction, but not simultaneously, in a girl of 12 recovering from fever, was reported by Chippendale[1]. This, also is manifestly outside of the scope of the present paper.

For the production of dislocation of one hip the pelvis must be fixed, while the femur is acted upon at its lower portion by some force tilting the head of the bone out of its socket; the Y ligament probably often acting as a fulcrum, and giving the dislocating force an immense advantage in the length of the lower arm of the lever. Or the converse of this mechanism may prevail, the lower end of the femur being fixed, while the pelvis is irresistibly borne forward or backward.

Now, in order that both hips may be luxated, both femora must be fixed, while the pelvis is forcibly moved. And this was the mechanism in all the cases now detailed. When, as it may readily be perceived would generally happen, the force acting on the pelvis does so in a slightly oblique direction, there is a twist given to the lower part of the body, and the head of one femur passes backward, while the other goes forward. In the cases in which the force acts squarely, both femora are displaced alike. The oblique action of the force may be due to the position of the pelvis itself, or to a slight difference in that of the feet of the patient.

It may be noticed that I have not been at pains to discriminate between the posterior luxations, or to the dorsum ilii, or into the ischiatic notch, or between the anterior luxations, on to the pelvis or into the thyroid foramen. This is simply because such a distinction is not necessary for my present purpose.

With regard to the diagnosis of the lesions in question, I need only refer to the value of the suggestions made by Dr. Allis in his paper, above quoted, that the length of the femora should be compared not only in the extended position, bnt also when flexed at an angle of 90 degrees to the body. Attention to this point would obviate many mistakes which might otherwise very readily happen, as illustrated by some of the foregoing histories.

A few words only need be said as to simultaneous dislocations of other joints. Rare as are those of the hip, it is even more exceptional for the other articulations to suffer in this way.

The only case within my knowledge, concerning the shoulders, is reported by Caskie[2]. A laborer "was standing on the frame-work of a pile-driving machine, when the axle of a pulley at the base, upon which the chain which raises the ram, weighing thirty-six hundred weight, turns at right angles, broke, and the chain, springing upwards, caught him under one arm, threw him aloft, and he fell to the ground on the other arm." Hence the luxations were not, strictly speaking, simultaneous. Luxation of the right humerus into the axilla was at once detected, and reduced under chloroform. "Subsequently"—exactly how long is not stated—attention was directed to the abnormal position of the elbow of the left arm, which was found to be similarly dislocated. Chloroform was again given, and this luxation easily reduced.

[1] Transactions, vol. xxiv., p. 123.

[1] *British Medical Journal*, October 3, 1857.
[2] *British Medical Journal*, Nov. 26, 1881.

Simultaneous dislocation of both wrists has been, I believe, reported to have occurred in a few instances; but I have no references to cite, and should be inclined to question the correctness of the diagnosis, in view of the great rarity of the undoubted examples of displacement of that joint.

EXTERNAL MEDIAN PERINÆAL URETHROTOMY, FOR CYSTITIS AND FOR THE REMOVAL OF MORBID GROWTHS FROM THE BLADDER.

BY B. B. BONTACOU, M.D.

[Read before the Surgical Section of the American Medical Association, June, 1883.]

The operation is a median incision of the perinæum, commencing about one inch from the anus, and extending about one or one and a half inches towards the scrotum, according to the depth of the perinæum and size of the subject, and terminating in the membranous portion of the urethra, which should be laid open just in front of the bladder to the extent of one-half to three-fourths of an inch. This is done on a grooved staff, while the patient is in the lithotomy position, the bowels having previously been emptied. The operation is simple, almost bloodless, and rapidly and easily executed. The finger may then be admitted to the bladder, and by counter pressure above the pubes (if the patient is profoundly etherized) every part of the viscus may be made to touch the point of the finger, thereby obtaining most intelligent and thorough examination of the whole interior, and enabling the operator to remove with spoon, forceps or snare any morbid growth capable of being removed. The operation is especially adapted to cases of irritable bladder from vegetation or polypoid growths, and to cases of chronic cystitis from other causes, that have proved incurable by drugs and hygienic methods. The lateral operation, as for lithotomy, was in November, 1850, practiced by Prof. Parker, of New York, for the relief of an obstinate case of cystitis, the result of gonorrhœal inflammation, but this method, much more simple and less dangerous, has not been practiced for this class of cases, I believe, until Sir Henry Thompson, of London, in 1882, recommended and practiced it on a few cases with gratifying results, and his publications induced me to apply it to two very bad cases that came under my care, one of which, F. S., a young man of 28 years, of correct habits and specific history, and who was a strong laboring man, a moulder by occupation, until March, 1882, when he took sick with rheumatism, which lasted two months; and during the sickness his bladder trouble commenced, with scalding of the urine, accompanied by pus and mucus in large quantities. Efforts to expel this brought on distressing tenesmus and protrusion of the bowel, and he was obliged to void his urine every half hour night and day, and often the burning in the penis and straining were so unbearable that he was forced to cry aloud. He came under my care in October, 1882. Irrigation of the bladder and numerous other means were tried, but it was so painful to him that he would not submit to it with any regularity, and then only when under the effects of an anodyne injection of one or two teaspoonfuls of laudanum. Hyosciamus and camphor, salicylate of soda, bromide of potassium, buchu, uva ursa and epigea repens, balsam copaiba, turpentine and other remedies were given internally, while laudanum injections, opii suppositories and ergot were used by the rectum, and the bladder was washed out whenever he could tolerate it with solutions of borax and carbolic acid, chlorate of potassa, bi-carb. soda, permanganate of potassa, alum and sulph. zinci, with varying degrees of relief. On March 20, 1883, performed this operation, and found two polypoid growths hanging from the upper and anterior surface of the bladder, which I removed with the finger nail and forceps without producing much hæmorrhage. Bladder was thoroughly washed out, and a drainage tube of large caliber inserted and left in. The tube was retained with some difficulty, owing to the severe contraction of the viscus, but its presence was not painful to the patient, and through this his bladder was two or three times daily irrigated with solution of borax and carbolic acid, and the slime and pus escaped as fast as secreted. The agonizing burning pain in the penis ceased at once, and returned only on a few occasions, when the tube had become obstructed or had slipped down into the perinæal wound. He could sleep a greater part of the night without anodynes, and expressed himself as quite happy compared with his former state. About the middle of April both lower limbs swelled and all the joints were painful, which appeared as a form of rheumatism, and yielded to the internal use of salicylate of sodium. This man is now well enough to walk some distance daily, and his general health nearly restored to normal standard. This drainage tube was kept in use one month, since which time it has not been required, and the bladder empties itself mostly through the natural passage, but occasionally some escapes from the sinus, which is not yet entirely healed.

CASE No. 2.—I. H. N., moulder by occupation, 26 years of age, with no specific history, who for 3 or 4 years had been suffering from irritable bladder, took cold about 8 months ago and had a decided aggravation of his troubles, and 8 months ago married, soon after which he became much worse and was obliged to remain in his bed, being unable to walk on account of the painful straining and burning pain in the penis. He was obliged from this time to pass his urine every hour or oftener day and night and always accompanied by quantities of mucus and pus. He was admitted to St. Peter's Hospital at Albany, New York, and remained there ten weeks, and finding no relief returned to his home in West Troy, and came under my care April 4th, 1883. Irrigation of his bladder had been practiced by himself and attendants since January, 1883, but not regularly on account of the great pain attending the introduction of the catheter, and often suffering four or five hours torment after the operation. I did not succeed satisfactorily with the use of internal remedies, and May 7th, 1883, I performed median external perinæal urethrotomy and found just within the neck of the bladder on his left side a cock's comb-shaped vegetation, which I removed with forceps and my

finger nails, and inserted a drainage tube doubled upon itself, with two eyes in the inner curve of the doubles, and kept in the form of an open loop by a sleader brass wire of sufficient temper to keep the knuckle of tube expanded within the bladder, this I found to be self-retaining, and has great advantage over the straight tubes in retaining its position without tying; the loop was curved downward so that it would lay in the cul-de-sac behind the neck and siphon off the morbid secretions disposed to collect there. Through this double tube his attendant easily irrigated the bladder from a fountain syringe without pain to the patient, and the relief this man experienced was, as he expressed it, charming. He was wasted to a great degree by his long suffering, but soon regained his appetite and enjoyed sleep at night for hours, whereas formerly he was every few minutes disturbed, and his suffering from the burning pain and tenesmus was pitiable, notwithstanding the use of liberal opiates by the rectum. All that ceased and has not returned, and is now dispensing with the tubes and able to sit up and walk about the rooms. The sinus still discharges urine, but the mucus and other evidences of inflammation have gone.

A singular accident occurred in the treatment of this case. A fortnight after the operation he was taken with a smart hæmorrhage which was controlled by use of cold alum solution and sub. sulph. of iron, which latter ingredient I should advise not to be again used, as the coagulum formed in the bladder was so hard that I was compelled to break it up and remove it piece-meal with the lithotomy forceps. I hope to be able to report shortly two of the cases of the same trouble, in which I intend to perform the operation.

GERMICIDES.—AN EXPERIMENTAL STUDY UPON THE COMPARATIVE VALUES OF ANTISEPTICS.

BY HENRY O. MARCY, M.D., BOSTON, MASS.

[Read to the Section on Surgery and Anatomy.]

The deleterious effect of micro-organisms upon wounds can no longer be doubted. The so-called germ theory has passed into the realm of demonstrated fact. The patient labors of scores of very careful investigators during the last generation have slowly elaborated the fact that fermentation is dependent upon a particulate something, omnipresent in ordinary surroundings, and clearly shown that this something belongs to one or another of the varieties of exceedingly minute vegetable organisms, which compensate by number and rapidity of development that which they lack in size. In the study of these minute organisms the important question arises, perhaps second at present to none in the entire realm of the science of medicine, how can we be protected from their deleterious effects?

As the outcome of experimental research, there has been offered to the profession a large number of so-called germicides, and the thought which prompted the laboratory studies that form the basis of this paper was to test the comparative values of as large a number as the time at our disposal would permit. We take pleasure in acknowledging the painstaking and efficient aid of Dr. Samuel N. Nelson, of Cambridge, in the entire series of experiments.

At the outset it is well to bear in mind that one agent may possess a value dependent upon its power to destroy the vital organism, and another upon its power to restrain it from active development, although it has no destructive effect upon the organism itself. Thus, in a certain sense, as a result, this latter group of agents may be classed with the former, as, for example, chloride of zinc, which restrains the bacteria from development, because it acts chemically upon the albumen of the nutrient fluid.

Although the results of the experimental researches to be given, have an indirect bearing upon the medical value of the different agents tested, the primal thought which prompted the investigation was to ascertain the value which such agents may have in their surgical uses, for the destruction of organisms which cause putrefaction in wounds, the agent to be of value must act quickly, and it was therefore held as important that the material to be tested should have only a brief period of contact with the germ-bearing fluid. For this reason a considerable quantity, in each instance three drachms, of the test fluid was carefully mixed with one drachm of the putrefactive material and after a given measured time a small portion of the mixture, two or three drops only, transferred to the aseptic nutrient fluid which was carefully protected from contamination and placed under observation. If bacteria have preserved their vitality during the brief period of contact with the antiseptic, the minute quantity thus taken as *seed* will rapidly germinate in the nutrient solution and soon putrefactive changes will be apparent.

Thus we know that either the antiseptic was not of a sufficient strength, or not in contact for a length of time requisite, to act as a germicide. By varying the time of exposure and the strength of the antiseptic solution, the experiment is repeated, until the minimum time and strength have been ascertained, which are requisite to destroy the bacteria in the material used. Of course each test was verified by careful microscopic examination in order to determine the presence or absence of micro-organisms, and when found, their character and condition.

The first series of experiments which were undertaken more than a year ago were made as follows: The aseptic solution was prepared by boiling several small pieces of meat with a large quantity of water in a glass flask, purified by exposure to the flame of an alcohol lamp. This flask was stopped with a rubber cork perforated by two glass tubes for the convenience of decanting. The tubes were bent downwards and the ends were protected with carbolized gauze. The cork and tubes were carefully cleansed beforehand with carbolic acid. The resulting solution, if made with lean meat settles clear; if the meat is fat the solution is rendered cloudy by fine oil drops and must be prepared again. The solution thus in a proper condition was placed under a bell jar where it remained indefinitely aseptic. The combined material is placed in a test tube purified by heat and this is covered by a bell glass similiarly puri-

fied which rests upon a carbolized cushion. In this way it is subject to easy inspection and is protected from all external agencies.

It must be borne in mind that these experiments differ essentially from those of Dr. Koch, now widely known, and also from those equally interesting and instructive of Dr. Sternberg, recently published in the the April number of the *Americau Journal of Medical Sciences*. Here the test solutions are made of given strength and into these the bacteria under observation are introduced and allowed to remain. In Dr. Sternberg's experiments the standard of time chosen was two hours, in our own from five seconds to five minutes.

Although, I think the former methods perhaps the best for certain deductions which may be safely drawn therefrom, this difference of treatment of the various substances must be held in consideration in the comparison of the results obtained. In each instance the microscopical examination was made, and the results noted before reference to the substance being tested, in order that there might be no preconceived opinion of the value of the antiseptic to modify in any way the judgment. Uncharged aseptic tubes accompanied every experiment to note the accuracy of manipulation and these remained sterile. In each series a like quantity of septic solution was placed under test which invariably germinated. Thus we believe the experiments are in the main trustworthy.

Instead of continuing the tests at a uniform heat, nearly that of the blood, in a culture chamber, it seemed to us wiser to judge of their developments at the temperature of an ordinary room, i. e. about 70° F. since it is at this temperature that germs are being constantly reproduced prior to their invasion of the human organisms. It is true they germinate more rapidly at a higher temperature. Many experiments have shown that the spores of these microscopic plants withstand heat and cold to a remarkable degree, yet in their germinating state they are quite sensitive to considerable changes of temperature. In one set of experiments, during the winter, a cold night ruined the entire series. In the larger portion of the experiments the manipulation was made in the spray of one to twenty carbolic acid, so that atmospheric germs might the less endanger the safety of the fluids during the transfer. The micro-organisms were from beef-tea or other nutrient fluids "spoiled" by standing uncovered in a warm room and invariably contained micrococci, bacteria termo and vibrios.

The interesting experiments of Dr. Sternberg, furnished the American Association for the Advancement of Science, 1881, caused us to adopt his method of manipulation, which is much easier and safer. The bulbs used by Dr. Sternberg are not very unlike those used by Dr. Roberts in his experiments published in 1874. They are made from glass-tubing four-tenths of an inch in diameter, and will contain from one to four drams of fluid. With a little practice they are easily manufactured by one who is not an expert. After they have been partly filled with the nutrient fluid, they are sealed in the flame, and their aseptic condition rendered more certain by boiling in a strong salt solution for a considerable period, even for twenty-four hours. They are then put aside for observation. If aseptic, and they rarely fail to be, they may await use any convenient period. The end of the tube is broken when desired to be charged with the test solution, and again sealed, numbered and placed under observation. A slight film of albumen is freqently noticed upon the bulbs.

Inspection of the tables shows that the substances under observation which possess a germicidal power have in many instances a different effect over the different organisms. In most, however, the micrococci evince a superior and remarkable vitality. In a number of the tests where the fluid remained clear there were found a few inactive micrococci. These have been noted as sterile, and are presumably the organisms introduced, acted upon by the re-agent used. In a larger number, the fluid remaining clear, a few active cells have developed, and yet, only in a minute fraction of possibility of their healthy growth in the given quantity ot nutrient fluid, although, as may be seen by reference to the tables, some of the tests were under observation two or three months.

It cannot be doubted that many of the articles here tested and marked, failed to possess decided germicidal qualities. By failure is meant that during the very brief period in which they were allowed contact they did not destroy the germinating power of the "seed" fluid.

ALCOHOL, 95. Exposed from one to five minutes, did not prevent the fluid from becoming turbid, and both the micrococci and bacteria termo were actively developed.

ACID BORACIC, 1–10, in most of the tests showed a restraining power of development, and yet active cells were usually present. As a germicide it is of little value, and yet the experiments show that the widespread confidence in its clinical use is not altogether without foundation.

BORO-GLYCERIDE, 1–20. This compound has been highly recommended abroad. Exposures of from one to five minutes gave failure in each instance.

ACID-CARBOLIC. The many and varied experiments with this re-agent, relied upon most of all by surgeons the world over, show that there are decided limits to its germicidal power; 1–40, or over two per cent. solution generally fails to destroy the micrococci, and the 1–20 solution, although usually effective, should be in contact for at least one or more minutes to be trustworthy. In one instance the micrococcus of gonorrhœa remained active after a thorough mixing with a 1–20 solution for some hours, and when placed in an aseptic generating fluid reproduced rapidly. Dr. Sternberg states: "Carbolic acid failed to destroy the micrococcus from pus in the proportion of five per cent., but this amount was fatal to the septic micrococcus." He further states, "that carbolic acid to be trustworthy as a *disinfectant* should be used in not less than five per cent. for a period of two hours, for it is necessary to be on the safe side, and we do not know at present whether all of the pathogenic bacteria, hypothetical or demonstrated, form spores or otherwise." Dr. Koch states, "that

the results of his experiments with carbolic acid were entirely unexpected," and says, "One is accustomed to consider a two per cent. solution as entirely trustworthy for the destruction of micro-organisms in a few seconds or minutes." He further adds, "that the surgeon who washes his hands and instruments with a solution of this strength and trusts thereby for the protection of his patients, would certainly endanger them to the intection from the bacillus of splenic fever and probably other organisms." To an over-confidence in, and a careless use of, carbolic acid in surgery I believe may be traced many failures and subsequent scepticism as to the value of antiseptic surgery.

CALCIC CHLORIDE, 1–10. The limited experiments teach that it possesses a power to restrain a rapid germ development.

CHLORIDE OF ZINC, 1–12. Exposed from five seconds to five minutes gave a clear solution and only a very few active micrococci. It is trustworthy at this strength and probably in weaker solution.

OIL OF EUCALYPTUS, 1–100, 1–200. Time five seconds to two minutes. In nearly all the bulbs the fluid was turbid and micrococci and bacteria were found in limited numbers. It is not a powerful germicide, but like Listerine has its value chiefly in its aseptic qualities. Bucholtz showed by his experiments that it prevented putrefaction in strength of one part to 660, while carbolic acid to secure the same result required a strength of one to 200. Mr. Lister has given it a careful trial. It is not poisonous and quite unirritating, which for a variety of purposes is a very decided advantage over carbolic acid.

HYDRARGYRUM BICHLORIDUM, 1–1,000, 1–1,500, 1–2,000.—This entire series of seventeen tests show a most remarkable germicidal power, even the weakest solution exposed for only ten seconds produces sterility, and the entire series gave a uniformity of result not attained by any other re-agent. It furnishes a possible explanation of the confidence of our fathers in their clinical results from the use of mercurials in certain diseases, and to-day clearly ranks first of all the known re-agents as a disinfectant. The danger from its poisonous qualities, must of course, be carefully guarded against, but with proper precautions it may be safely adapted to a wide range of uses, surgical and otherwise.

LISTERINE, FROM LAMBERT & CO., ST. LOUIS. This preparation is "the essential antiseptic constituent of thyme, eucalyptus, baptisia, gaultheria, and mentha arvensis in combination. Each drachm contains two grains of benzo-boracic acid." Its germicidal power is less than carbolic acid solution 1-20 as thus tested, and yet it shows a decided restraining power over the development of micro-organisms. Exposed for a longer period it may be accounted as a trustworthy agent. It is safe for internal administration, and the laboratory experiments of Dr. Deems shows that it possesses remarkable aseptic qualities, that is, power to prevent rather than to destroy fermentation.

ACID SALICYLIC, 1-100, 1-200. The tests were for a shorter time than the average, the longer being only two minutes; but, as tabulated at these strengths, seventy-five per cent. were failures. However, there is observed a marked restraining power to the active development of micro-organisms. It acts more slowly than could be desired, although in chemical formula (C_7 H_6 O_3) so near like carbolic acid (C_7 H_6 O) does not compare favorably with it as a germicide.

"PLATT'S CHLORIDES." This well-advertised disinfectant has been commended by a long array of names of the profession well known in America. Exposed from five seconds to four minutes each test was a complete failure. The micrococcus and bacteria developed actively and decomposition soon ensued.

QUININE SULPHATIS, 1-10. Unfortunately, only a single test was made of quinine. This, exposed for five minutes, at the expiration of eighty-four days, gave as a result a clear fluid, with a considerable sediment, but this consisted of many myceleum threads and blood cells, but no micrococci or bacteria. Since we are familiar with its primal value in certain of the zymotic diseases, it deserves, and doubtless will soon receive, a much more minute examination in order to determine its germicidal properties and value.

THYMOL, 1-500, 1-1000, 1-1500. Ten experiments gave only one success, and this with a solution of 1-500 exposed five minutes. The active development of micro-organisms soon rendered the solutions turbid. It is evident from this that thymol has justly fallen from the high position some years since accorded to it as an antiseptic.

BALSAM PERU, 1–2, ALCOHOLIC SOLUTION. In only four tests from one to five minutes, there was found a uniformity of result. The fluid remained clear and there were only a very few active micrococci, no bacteria, and like turpentine, balsam of Peru appears to be a very valuable and safe agent for surgical purposes. It shows also that the extensive use of it in the treatment of wounds by the natives of South America, is probably founded upon correct observation.

TURPENTINE. Full strength and diluted with equal quantities of alcohol. In the first series all failed, but the turpentine mixed very imperfectly with the foul solution. In the second series the success is exceptional, for even exposed thirty seconds the fluid remained completely sterile. Professor Koch's experiments show that turpentine is a very efficient germicide. One source of its value may be its power to absorb oxygen which it converts into ozone. The pine forests of the South, even in close proximity to rivers and swamps, the home of chill and fever, have long been known and resorted to because of their freedom from malaria. Further experiments with this promising agent should be undertaken to ascertain its full surgical value.

GLYCERINE has been recommended by a number of writers as an antiseptic dressing for wounds. Dr. Park, from his personal experience recommends it highly.[1] On account of its well known preservative qualities it would seem to be of value in wound treatment. As stated, fermentation soon developed and the micro-organisms were numerous and active.

BETA-NAPTHAL, 1—10. This is a recent product of the petroleum series, and comes from Germany. Exposed for five minutes the solution remained sterile.

[1] *Chicago Medical Journal and Examiner*, October, 1882.

NAPTHALIN, 1—20. This product has also been recently introduced by Lücke and Fischer, of Strasbourg, as an efficient germicide. Dr. George R. Fowler, of Brooklyn, has published a carefully-prepared paper upon its uses and merits[1]. It belongs, like the former, to the petroleum product, is a white crystalline body, is quite inexpensive, and claimed to be without danger. The tests were from thirty seconds to five minutes. In all the fluid remained clear, and only a few active micro-organisms appeared. It would seem to be a trustworthy and valuable addition to the surgeon's armamentarium. Surgical dressings made from it are easily prepared. Dr. Fowler's admirable article is worthy of careful study.

BICHROMATE OF POTASH, 1—50, 1—100. Exposed from thirty seconds to five minutes. In each test there were a few active growths, but its restraining power in controlling development was clearly manifest.

PERMANGANATE OF POTASH. 1—50, 1—100. The results under exposure of five minutes and less, were all failures, although the bacterial development was only in limited extent, and the results with open tubes and bulbs were quite similar. This is in marked contrast with the experience of Dr. Sternberg, who places this re-agent as second on his entire list, and trustworthy in one part to 800.

SALT has been recognized from time immemorial as the great universal preservative of animal tissues from putrefaction. This it does in part by its absorption of fluid from the tissues, but chiefly by its aseptic qualities. It is a well-known fact that when meats have begun to undergo putrefaction the process is restrained very imperfectly by the use of salt and other means are commonly resorted to. A saturated solution in hot water was used in the testing. Exposure from five seconds to two minutes. The fluid early became turbid, and micro-organisms developed rapidly. It is evidently not of much worth as a germicide, and must possess in surgery a purely hypothetical value.

IODOFORM. It is worthy of remark that tests were attempted with this re-agent, but, owing to its insolubility, this substance was found unfit for the class of tests here reported.

For a long period I have used iodoform in surgical dressing with satisfactory result. Recently, in the treatment of a deep phagedenic chancre, the sore was carefully cleaned, and refilled daily with a free quantity of iodoform. The improvement was not satisfactory, and at the fifth day microscopical examination showed abundant active micrococci, with everywhere crystals of iodoform interspersed. Its insolubility is a very evident objection.

In conclusion, we must repeat that we offer our observations to the profession only as an incomplete study, upon a subject beset with many difficulties. The field is large, and the labor involved great, although of intense interest, and of an importance of which the present only offers a possible faint indication. The splendid researches of Prof. Koch, under the authority and by the aid of the German government, furnishes a magnificent monument of painstaking labor.

Our own government has done much for surgery, through her corps of distinguished laborers belonging both to the army and the navy. May the good work be furthered by the selection of one like Dr. Sternberg (who has shown such exceptional fitness for the task) for this purpose, and suitable aid furnished for the carrying on of elaborate scientific investigations in a direction of such value and great promise.

The following tables show the details of the experiments alluded to in this paper:

[1] Annals of Anatomy and Surgery, May, 1883.

SERIES I.—TEST TUBES.

SUBSTANCE TESTED.	Strength of Solution.	Duration of Exposure.	Duration of Test Days.	Condition of Fluid.	Scum.	Sediment.	Presence of Micrococcus.	Activity of Micrococcus.	Presence of Bacterium Termo.	Activity of B. Termo.	Presence of Vibrio.	Activity of Vibrio.	Success or Failure.	REMARKS.
Acid Boracic.	1.10	5′	62	turbid.	mycelium growth	Much	M	active.	B	active	..	.....	F	
Acid Carbolic.	1.40	10″	14	slightly turbid.	.....	.....	M	active.	....	.....	..	.....	F	
"	1.40	10″	14	slightly turbid.	.....	slight	M	active.	....	.....	..	.....	F	
"	1.40	10″	14	turbid	.....	sed	M	active.	B	active	V	active	F	Doubtfully sterilized.
"	1.40	10″	14	turbid	scum	sed	M	active.	B	active	V	active	F	Doubtfully sterilized.
"	1.40	30″	14	clear.	.....	slight	....	active.	....	.....	..	.....	S	Nothing microscopically.
"	1.40	30″	14	slightly turbid.	.....	slight.	M	aative.	....	.....	..	.....	F	
"	1.40	30″	14	clear	.....	slight.	M	not active.	....	.....	..	.....	S	
"	1.40	30″	14	clear	.....	slight.	M	not active.	....	.....	..	.....	S	
"	1.40	1′	14	clear	.....	slight.	M	active.	....	.....	..	.....	F	
"	1.40	1′	14	clear	.....	slight.	M	active.	....	.....	..	.....	F	
"	1.40	1′	14	turbid	scum	slight.	M	active.	B	active	V	active	F	Doubtfully sterilized.
"	1.40	1′	14	clear	scum	slight.	M	active.	B	active	V	active	F	Doubtfully sterilized.
"	1.40	2′	84	clear	.....	.....	....	.....	....	.....	..	.....	S	Nothing microscopically.
"	1.40	2′	14	turbid.	much scum	much	M	active	B	active	V	active	F	
"	1.40	2′	14	turbid	mycelium	much.	M	active.	B	active	..	.....	F	Doubtfully sterilized.
"	1.40	2′	14	turbid	scum	much.	M	active.	B	active	..	.....	F	Doubtfully sterilized.
"	1.40	2′	14	slightly turbid.	.....	much.	M	active.	....	.....	..	.....	F	Mycoderma cells.
"	1.40	3′	84	clear.	.....	.....	....	.....	....	.....	..	.....	S	Nothing microscopically.
"	1.30	10″	14	clear	.....	very slight.	....	.....	....	.....	..	.....	S	Microscopically—a few red blood cells.
"	1.30	10″	14	clear.	.....	very slight.	....	.....	....	.....	..	.....	S	Nothing microscopically.
"	1.30	30″	14	clear	.....	sed	....	.....	....	.....	..	.....	S	Microscopically—a few granules and shreds.

SERIES I.—TEST TUBES.—*Continued.*

SUBSTANCE TESTED.	Strength of Solution.	Duration of Exposure.	Duration of Test Days.	Condition of Fluid.	Scum.	Sediment.	Presence of Micrococcus.	Activity of Micrococcus.	Presence of Bacterium Termo.	Activity of B. Termo.	Presence of Vibrio.	Activity of Vibrio.	Success or Failure.	REMARKS.
Acid Carbolic.	1.30	30″	14	turbid		sed	M	active.	B	active	V	active	F	Doubtfully sterilized.
"	1.30	30″	14	clear		sed	M	active.					F	
"	1.30	30″	14	slightly turbid	scum	sed	M	active.	B	active			F	Doubtfully sterilized.
"	1.30	30″	14	clear		sed	M	active.					F	
"	1.30	30″	14	clear		sed	M	active.					F	[cells.
"	1.20	5′	61	clear		slight.							S	Microscopically—a few red blood
"	1.20	5′	84	clear									S	Nothing microscopically.
"	1.20	5′	14	clear		slight.	M	active.					F	
"	1.20	5′	14	clear		very slight.	v'ry few M	active.					F	
"	1.20	5′	14	slightly turbid			few M	some dead some active.					F	Probably not sterilized at first.
"	1.20	5′	14	clear	slight scum	slight.	M	active.	B	active	V	active	F	Probably not sterilized at first.
"	1.20	10′	14	clear		very slight.							S	Nothing microscopically.
"	1.20	10′	14	clear		"							S	Nothing microscopically. [cells.
"	1.20	10′	14	clear									S	Microscopically—a few red blood
"	1.20	10′	14	clear		sed	M	active.	B	active	V	active	F	Doubtfully sterilized.
Acid Salicylic.	1.100	1′	84	turbid		slight.			B	active			F	
"	1.100	3′	84	clear									S	Nothing microscopically.
Boroglyceride.	1.30	1′	60	turbid		sed	M	active.	B	active			F	
"	1.30	3′	61	turbid		sed	M	active. not	B	active			F	
Calcium Chloride.	1.10	5′	21	clear	mycelium growth		M few	active. not very	B	active			F	
Hydrargyrum Bichloridum.	1.2000	30″	14	clear		slight.	M few	active.					S	[cells.
"	1.2000	30″	14	clear		slight.	few	"					S	Microscopically—a few red blood
"	1.2000	1′	14	clear		slight.	few	"					F	
"	1.2000	1′	14	clear			few	active.					F	
"	1.1500	10″	14	clear									S	Nothing microscopically.
"	1.1500	10′	14	clear									S	Nothing microscopically.
"	1.1500	30″	14	clear									S	Nothing microscopically. [cells.
"	1.1500	1′	14	clear									S	Microscopically—a few red blood
"	1.1000	5′	14	clear									S	Nothing microscopically.
"	1.1000	10″	14	clear	mycelium	sed	few	active.					F	
"	1.1000	10′	14	clear		slight.	M few	active. not					F	
"	1.1000	30″	14	clear			M few	active.					S	
"	1.1000	30′	14	clear			M						S	Nothing microscopically.
Listerine	.....	5′	61	turbid			M	active.	B	active	V	active	F	Mycelium growth.
"	.....	10′	61	turbid			M	active.	B	active	V	active	F	
"	.....	1′	84	turbid	mycelium growth	sed	M	active.	B	active	V	active	F	
"	.....	2′	84	turbid	mycelium growth	sed	M	active.	B	active	V	active	F	
"	.....	4′	84	clear									S	Nothing microscopically.
Oleum Eucalyptus	1.100	3′	84	slightly turbid			M	active.	B	active			F	
"	1.100 arc.	1′	62	clear		much.							S	
" Platt's Chlorides"	.....	5′	61	turbid		much.	M	active.	B	active	V	active	F	
"	.....	10′	1	turbid		much.	M	active.	B	active	V	active	F	
"	.....	1′	23	turbid		much.			B	active			F	
"	.....	2′	23	turbid		much.	M	not active,	B	active			F	
"	.....	4′	23	turbid		sed	M	not active.	B	active			F	
Potassium Permaganas	1.50	2′	21	turbid	mycelium growth	sed	M	active.	B	active			F	
"	1.100	4′	62	clear		sed	M	active.					F	
Quiniæ Sulphas	1.10	5′	84		mycelium	sed							S	[blood cells.
Thymol	1.1000	2′	84	clear		slight.	few M	not active.	few B	not active			F	Many mycelium threads and
"	1.1000	4′	84	clear		slight.	m'y M	not active.					S	
"	1.500	1′	84	clear			few M	not active,					S	
"	1.500	3′	84	clear									S	Nothing microscopically.
Zinc Chloride.	1.12	5′	84	clear									S	Nothing mtcroscopically.
Sterlized Fluid	.....	.....	..	clear									S	Microscopically—a few red blood cells.
"	.....	.....	..	clear									S	Microscopically—a few red blood cells.
"	.....	.....	..	clear									S	Microscopically—a few red blood cells.
"	.....	.....	..	clear									S	Microscopically—a few red blood cells.
"	.....	.....	..	clear									S	Microscopically—a few red blood cells.
"	.....	.....	..	clear									S	Microscopically—a few red blood cells.
Plus Foul Solution	.....	.....	..	turbid	scum	sed	M	active.	B	active	V	active	..	
"	.....	.....	..	turbid	scum	sed	M	active.	B	active	..	active	..	

SERIES II.—BULBS.

SUBSTANCE TESTED.	Strength of Solution.	Duration of Exposure.	Condition of Fluid.	Date Turbidity First Noticed.	Scum.	Sediment.	Duration of Test Days	Presence of Micrococcus	Activity of Micrococcus	Presence of Bacterium Termo.	Activity of B Termo.	Presence of Vibrio.	Activity of Vibrio.	Success or Failure.	REMARKS.
Acid Boracic..	1.150	1'	clear	5	scum...	slight sed. of albumen,	6	few M	active	few B	active	few V	active	F	Mycoderma cells.
"	1.150	2'	torbid	3	.....	"	8	M	active	B	active	....	.....	F	
"	1.150	5'	turbid	2	.....	"	8	M	active	B	active	....	.....	F	
"	1.10	5''	clear.....	..	.....	"	9	....	.....	....	.....	....	active	F	
"	1.10	30''	clear	..	.....	"	9	few M	active	few B	active	few V	active	F	Mycoderma cells.
"	1.10	1'	clear	..	.....	"	9	few M	active	few B	active	....	.....	F	
Acid Carbolic.	1.40	10''	slightly turbid	6	.....	"	26	M	active	..	.....	....	.....	F	
"	1.40	30''	slightly turbid	9	.....	"	27	M	active	B	active	V	active	F	
"	1.20	5''	clear	..	.....	"	27	M	.....	....	.....	....	.....	S	Nothing mycroscopically.
"	1.20	10''	clear.....	..	.....	"	27	few M	not active	....	.....	....	.....	S	
Acid Salicylic.	1.200	30'	turbid	9	scum...	"	9	few M	active	few B	active	....	.....	F	
"	1.200	1'	turbid	8	.....	"	8	M	active	B	active	V	active	F	
"	1.200	2'	turbid	3	.....	"	8	M	active	B	active	....	.....	F	Mycelium.
"	1.100	5''	clear	1	.....	"	12	M	active	B	active	V	active	F	
"	1.100	30''	clear	..	scum...	"	9	M	active	B	active	V	active	F	Mycoderma cells.
"	1.100	1'	clear	..	.....	"	9	few M	active	....	.....	....	.....	S	Microscopically—a few red blood cells.
Alcohol.....	.....	1'	turbid	1	.....	"	8	M	active	B	active	V	active	F	
"	.....	2'	slightly turbid	..	scum...	"	6	few M	active	few B	active	V	active	F	Mycoderma cells.
"	.....	5'	slightly turbid	3	.....	"	8	M	active	B	active	....	active	F	
Balsam Peru..	1.2 alc.	1'	clear	..	scum...	"	5	M	active	....	.....	....	.....	S	Liquid irridescent. Mycorderma cells.
"	1.2 alc.	5'	clear	..	.....	"	5	M	active	..	.....	....	.....	S	Liquid irridescent.
"	.....	1'	clear	..	.....	"	5	M	active	..	.....	....	.....	S	Liquid irridescent—fat globules.
"	.....	2'	clear	..	.....	"	5	few M	active	....	.....	....	.....	S	Liquid irridescent—fat and mycolium.
Beta Napthol.	1.10 alc.	1'	turbid.	5	.....	"	5	M	active	....	.....	....	.. ..	F	
"	1.10 alc.	5'	clear	..	.....	"	5	M	active	....	.....	....	.....	S	
Boroglyceride.	1.20	1'	clear	..	.....	"	7	M	active	....	.....	....	.....	F	Slight precipitate of albumen at once —microscopically—a few red blood cells.
"	1.20	3'	turbid	1	.....	"	3	M	active	B	active	....	.....	F	
"	1.20	5'	turbid	1	.....	"	2	M	active	B	active	V	active	F	
Glycerine.....	.....	1'	slightly turbid	8	.....	"	8	M	active	few B	active	....	.....	F	
"	.....	2'	slightly turbid	5	.....	"	6	M	active	B	active	....	.....	F	
"	.....	5'	slightly turbid	5	scum...	"	8	few M	active	few B	active	....	.....	F	
Hydrargyri Bichloridum	1.2000	10''	clear	..	.....	"	15	few M	not active	...	.....	....	.....	S	
"	1.2000	30''	clear	..	.....	"	15	....	.....	....	.....	....	.....	S	Microscopically—a few red blood cells
"	1.1000	5''	clear	..	.....	"	15	...	.....	....	.....	....	.....	S	Microscopically—a few red blood cells
"	1.1000	10''	clear	..	.....	"	15	few M	not active	....	.....	....	.....	S	
Listerine.....	1.2	10''	slightly turbid	9	.....	"	24	M	active	...	.....	....	.....	F	
"	1.2	10''	clear	..	.....	"	16	....	active	....	.....	....	.....	S	Microscopically—a few blood cells.
"	1.2	30''	slightly turbid	6	.....	"	24	few M	active	B	active	....	.....	F	
"	1.2	30'	slightly turbid	6	.....	"	15	M	active	B	active	....	.....	F	
"	1.2	1'	very turbid...	8	....	"	24	M	active	B	active	V	active	F	
"	1.2	1'	clear	..	... .	"	15	....	.....	..	.....	....	.....	S	Nothing miscroscopscally.
"	1.2	1'	slightly turbid	6	.....	"	15	M	active	B	active	...	.....	F	
"	1.2	2'	slightly turbid	6	... .	"	15	M	active	....	.....	....	.....	F	Miscroscopically—a few red blood cells.
"	.....	5''	slightly turbid	11	... ...	"	24	M	active	B	active	....	.....	F	
"	.....	10''	slightly turbid	11	.....	"	27	M	active	..	.....	....	.....	F	
"	.....	30'	turbid	6	.....	sed.	24	M	active	B	active	....	.....	F	
Napthalin....	1.20 Alcohol.	30''	clear	..	.....	"	7	few M	active	....	....	....	.....	S	Crystals precipitated at once.
"	1.20 Alcohol.	1'	clear	..	.....	"	7	....	.....	....	.....	V	active	F	Crystals precipitated at once.
"	1.20 Alcohol.	5''	clear	..	.....	"	7	M	active	....	.....	few V	active	F	Crystals precipitated at once.
"	1.10	5''	clear	..	.....	"	7	M	active	few B	active	....	.....	F	Crystals precipitated at once.
"	1.10	30''	clear	..	.....	"	7	M	active	....	.....	....	.....	S	Crystals precipitated at once.
"	1.10	1'	clear	..	.....	"	7	few M	active	...	.....	....	.....	S	
Oleum Eucalyptus	1.200 alcohol.	30''	turbid	8	.....	"	8	few M	active	few B	active	....	.....	F	
"	1.200 alcohol.	1'	turbid	3	.....	"	8	M	active	B	active	....	.....	F	

SEERIES II.—BULBS.—*Continued.*

SUBSTANCE TESTED.	Strength of Solution.	Duration of Exposure.	Condition of Fluid.	Date Turpidity First Noticed.	Scum.	Sediment.	Duration of Test Days.	Presence of Micrococcus.	Activity of Micrococcus.	Presence of Bacterium Termo.	Activity of B. Termo.	Presence of Vibrio.	Activity of Vibrio.	Success or Failure.	REMARKS.
"	1.200 alcohol.	2'	turbid	3	.....	slight sed. of albumen,	8	few M	active	few B	active	....	....	F	
"	1.100 alcohol.	30"	turbid.....	4	.....	"	6	few M	active	few B	active	few	active	F	
"	1.100 alcohol.	1'	turbid.....	3	.....	"	8	M	active	....	.....	few V	active	F	
Potassii Bichromas	1.50	1'	clear	..	.....	"	7	few M	active	few B	active	....	.....	F	
"	1.50	2'	clear	..	.....	"	7	M	active	....	....	....	.....	F	
"	1.50	5'	clear	..	.....	"	7	....	.....	....	.....	....	.....	S	Microscopically—a few red blood cells.
Potassii Permanganas	1.100	1'	turbid.....	4	scum...	"	4	few M	active	few B	active	....	.....	F	
"	1.100	5'	clear	..	scum...	"	7	M	active	....	.....	....	.....	F	
"	1.50	30"	clear	..	.....	"	7	M	active	....	.....	....	.....	F	Micoderma cells.
"	1.50	2'	turbid	2	.....	"	2	M	active	few B	active	V	active	F	
Salt.....	satur'ed solution hot water,	5"	turbid.....	3	.....	"	8	M	active	B	active	V	active	F	
"	"	30"	turbid.....	3	.....	"	8	M	active	B	active	V	active	F	
"	"	1'	turbid.....	2	.....	"	8	M	active	B	active	....	....	F	
"	"	2'	turbid	2	.....	"	8	M	active	few B	active	....	.....	F	
Thymol.....	1.1500	30"	turbid	2	.....	"	4	M	active	...	...	....	.....	F	
"	1.1500	2'	turbid	1	.....	"	2	M	active	B	active	....	.....	F	
"	1.1500	5'	turbid	1	.....	"	2	M	active	B	active	V	active	F	
"	1.500	15"	turbid	2	.....	"	7	M	acive	...	.....	....	.....	F	
"	1.500	30"	clear	..	.....	"	7	M	active	....	.....	....	.....	F	
"	1.500	2'	turbid	1	.....	"	2	M	active	B	active	...	.....	F	
Turpentine...	.....	5"	turbid	6	.....	"	15	M	active	B	active	....	.....	F	Imperfectly mixed.
"	.....	10'	turbid	6	.....	"	15	M	active	B	active	V	active	F	Imperfectly mixed.
"	.....	30'	turbid	6	.....	"	15	M	active	B	active	....	.....	F	Imperfectly mixed.
"	1.2 alcohol.	30"	clear	..	.....	"	16	..	..	...	....	.....	.....	S	Microscopically—a few red blood cells
"	1.2 alcohol.	1'	clear	..	.....	"	16	....	....	....	.....	.....	.....	S	Microscopically—a few red blood cells
"	1.2 alcohol.	2'	clear	..	.....	"	16	....	..	..	.....	....	....	S	Mycelium.
Zinci Chloridum	1.12	5"	clear	..	.....	"	7	...	.....	....	.....	....	.....	S	Microscopically—a few red blood cells. Doubtful if added the two drops to this bulb.
"	1.12	30"	clear	..	.....	"	7	M	active	..	.....	...	.....	F	
"	1.12	1'	clear	..	.....	"	7	M	active	B	active	....	.....	F	
"	1.12	15	turbid.....	3	.....	"	4	M	active	few B	active	....	.....	F	
Sterilized Bulb.	.....	....	clear	..	.....	"	20	....	.....	....	.....	....	.....	S	Microscopically—a few red blood cells
"	.....	....	clear	..	.....	"	20	....	....	..	....	....	.....	S	Microscopically—a few red blood cells
Plus Foul Solution	.....	....	turbid	2	.....	"	20	M	active	B	active	V	active	..	

ON A FORM OF INGUINAL HERNIA LIABLE TO BE OVERLOOKED.

BY A. H. WILSON, M.D., SOUTH BOSTON, MASS.

[Read to the Surgical Section of the American Medical Asociation, at Cleveland, June, 1883.]

I do not claim to have discovered any new form of hernial displacement, or to have devised any new operation for its radical cure. Indeed, to my mind, most of the so-called radical cures are either slight modifications of long-established operations, or are old operations that have fallen into disuse revived. What I do claim, however, Mr. Chairman, is this: That a form of hernia recognized by older surgeons as obscure and difficult of diagnosis, and as very frequently resulting in death because of such failure to ascertain its existence, is as frequent to-day as in the days of Cooper, Pott, and Scarpa, and yet most of the present writers and teachers say but little about its true character and importance. Bubonocele or incomplete external inguinal hernia begins by the protrusion of the viscera at the internal abdominal ring over the spermatic cord into the inguinal canal. As it does not overcome the resistance of the lower opening, the tumor is retained in the canal. The cremaster muscle, the spermatic and epigastric vessels have the same relative position in this as in the complete external inguinal hernia; that is, the fibers of the former are spread over the peritoneal sack on its anterior aspect; the spermatic vessels run along its posterior surface, and the epigastric artery is found on the inner or pubic side of its mouth. The tumor is covered externally by the aponeurosis of the external oblique muscle of the abdomen; its opposite or internal surface rests on the fascia transversalis.

It is bounded below by the crural arch; above by the inferior margin of the internal oblique and transversalis muscles, of which the fibers are more or less raised. The resistence which the aponeurosis of the external oblique and the facia transversalis may be expected to oppose to the development of a tumor in the narrow space left between them and the ready passage of the protrusion as it increases through the external abdominal ring, will account for the incomplete inguinal hernia being usually small. The protruded parts, however, although bound down by the external oblique aponeurosis so that they do not constitute an external swelling, gradually separate the sides of the inguinal canal, which yields toward the abdomen and extends sometimes considerably below the limits of that canal. Hence, on operation or dissection, we find the hernial tumor larger than we should have expected. The bubonocele may be either an enterocele, an epiplocele or an entero-epiplocele, and if the latter exist, and be composed chiefly of omentum, with only a part of the caliber of the intestine included in the tumor, the symptoms of its presence may be so very mild in character as to fail to attract the attention of the patient until some sudden violence develops it into a complete inguinal hernia; or the patient comes to his physician complaining of pain in the umbilical region, possibly of a severe character, requiring large doses of morphine to relieve; and the surgeon, if he suspects rupture, examines the inguinal region and finds a small hard tumor just above the middle of Ponpart's ligament, which he considers an enlarged inguinal lymphatic gland, and then turns to search for some other cause for the symptoms. Should vomiting of a stercoraceous character supervene, he would be likely to re-examine, and even then a good surgeon may fail in his diagnosis.

A medical friend practicing in the vicinity of Boston has kindly furnished me with the notes of a case occurring in his own practice which possesses many points of interest in the consideration of bubonocele, which I will read.

G. B., aged 63, married, medium habit, health generally good, shoe-cutter by occupation, was attacked suddenly about 3 P. M., July 31, 1878, with pain in abdomen; was called to see him some seven or eight hours later, and found him suffering from pain, severe in character, and rather above the umbilicus, together with nausea and vomiting. He said he had suffered several times from like attacks, but that a hypodermic injection of morphine always gave prompt relief. He was in bed and undressed, and I accidentally saw a left-side truss lying in a chair. I inquired as to hernia. He replied that he had worn a truss for it several years, and that it had given him no trouble, and was not troubling him at that time. Upon my attempting to examine for myself he was irritable, and refused to permit an examination to ascertain as to the presence or absence of hernia. He pettishly replied that he had been in the same condition before, and that an injection of morphine beneath the skin always relieved him, and that was all he wished to have done. I injected the morphine as he wished, and, as he soon grew comfortable, came away; was called again, however, in about five or six hours, and found him suffering as before. I again asked for an opportunity to make an examination. He examined himself a moment, and then assured me that there was neither bunch, pain or soreness in that region.

I repeated the injection of morphia, which gave him relief from pain, and came away. August 1st, he remained in bed, suffering at times, and requiring the subcutaneous injection twice or thrice during the day. No marked symptoms, except pain near the umbilicus and vomiting. During the night vomited fæcal matter in large quantities several times. At my morning call, August 2, found him in pain and suffering from nausea. Pulse and temperature increased. Mentally clear and even playful. I again asked permission to examine; but he refused with much impatience. He, however, examined himself, and insisted that there was no trouble in the inguinal region: thereupon, without any suggestion from the patient or his family, I called his former medical attendant in consultation; but the patient would grant him no liberties that he had not granted me. Hence we were in doubt as to the pathology of the case. Pain and vomiting still continued, but no especial tenderness or meteorism of abdomen. Febrile symptoms, together with prostration, continued till August 6th or 7th, when pain and vomiting ceased. He was hopeful and confident during his whole sickness. During the 8th and 9th sank and died, nine and a half days from commencement of the attack.

Autopsy August 10, twelve hours after death. External examination furnished no suggestions. Examination of abdominal cavity showed close to left internal inguinal ring a portion of ilium about two inches in length, completely sphacelated; also the internal surface of ring was gangrenous to the depth of from one-sixth to one-eighth of an inch. That a loop of intestine about an inch in length had entered the internal ring; become strangulated; passed on to mortification and become spontaneously reduced, admitted of no doubt.

Here, then, is a case of strangulated bubonocele, resulting in mortification and death, where there is an entire absence of pain in the inguinal region during the whole course and progress of the disease; and if we are to rely upon the statement of the patient, there was neither bunch, pain or soreness in the inguinal region. I think it fair, however, to assume that if any tumor was present in the groin it must have been quite small. Had my friend not seen the truss would he naturally, from the symptoms, have suspected hernia before the appearance of the stercoraceous vomiting? I think not.

Sir Astley Cooper gave the first clear description of incomplete external inguinal hernia. "This tumor," says he, "occurs much more commonly than is generally supposed; for I have frequently found it in the dissection of bodies of persons who have never been suspected of laboring under the disease, nor ever wore a truss. When strangulated, these cases more commonly fall under the care of the physician than the surgeon; for, as the patient himself is not conscious of having a tumor at the groin, the

symptoms of strangulation are ascribed to inflammation of the bowels, without a suspicion of the true cause having been excited, and the patient dies, as is supposed, of idiopathic peritonitis."

He also describes the following case: A man was admitted into St. Thomas's Hospital with symptoms of strangulated hernia, which for five days had been treated as a case of simple inflammation of the bowels, without a suspicion of the true cause having been excited. On examination a fullness could be perceived above Poupart's ligament, and when this was compressed, a small tumor like the end of the little finger, appeared at the abdominal ring, which again receded to its former place on withdrawing the pressure; pain was felt at the same time and in coughing much uneasiness was produced at that spot. As five days had elapsed between the first accession of the symptons and his admission into the hospital, the performance of an operation afforded but little prospect of success, for besides vomiting he had been troubled with a hiccough for forty hours, his belly was sore on pressure, and his pulse so small as scarcely to be distinguished. However, as it was the only possible chance for recovery, the operation was undertaken. On cutting down to the tumor, it was found to be produced by a hernial sack an inch and a half long, and when this was opened about half the circumference of one of the small intestines was found to be contained within it, together with a quantity of sanious serum. The stricture which existed an inch and a half above the abdominal ring was then divided. The intestine was discovered, but the point of the knife having accidently touched one of its superficial veins, the blood issued from it freely, proving that the bowel was in a fit state to be returned, which was accordingly done as soon as the bleeding ceased. The patient had stools in twelve hours, and although he afterward suffered from a severe purging, he ultimately recovered. Here is a report of a case occurring in the days of Sir Astley Cooper, and under his own observation, and what reason have we to believe that the same errors in diagnosis are not made to-day; Prof. Agnew says in the first volume of his work on surgery, page 468, "that in concealed inguinal hernia, a portion of the intestine may be strangulated at the internal ring so small as to render it impossible for the surgeon to discover its existence either by sight or touch. I have witnessed a number of deaths from this form of hernia which have been treated as cases of colic." I think we may fairly conclude that notwithstanding the many great improvements that have been made in modern surgery, we fail to-day to impress upon the medical student, the liability of its occurrence and the great danger of excluding the possibility of its existence, because *all* the ordinary symptons of hernia are not present. I am surprised that so many of the authors of the recent works on surgery should dismiss this; to my mind, important form of inguinal hernia, some with barely a reference and others with the briefest sort of an allusion. The question naturally arrises, that having taken the ground that this form of disease is frequently overlooked, what is the remedy? I answer that being fully alive to the possibility of its existence and a knowledge of its obscurity and great difficulty of detection, will have the effect to diminish largely the number of deaths from strangulated hernia, treated as colic or idiopathic peritonitis. The student should be taught where to look for a slight hernial protrusion through the inner ring. He should be told of the changes and liability of mistaking it for an enlarged inguinal gland; of the possibility of the enlarged canal protruding into the abdominal cavity, with but slight or no external swelling; of the necessity of carefully compressing both sides of the abdomen.

These are a few of the essential points to be inculcated that present themselves to my mind. I desire here to speak of another point in connection with the formation of the hernial sack, that seems to be almost forgotten, and that is to call attention to the *importance* of remembering that the portion of peritoneum employed to form it may be represented by a plain membrane about three inches in diameter, more or less, according to the amount of protrusion; and the circumference of this portion of peritoneum would be about ten inches. Now when the sack is formed the fundus is covered with a single layer of peritoneum. The periphery folded and puckered like the mouth of a closed purse would be formed at the inner ring, and the greater the amount of protusion the more folding and the deeper the folds at the internal ring. This crowding of ten inches of peritoneum into the space of one inch would become an important factor in producing strangulation at the inner ring, and the pressure of these folds of peritoneum against each other, under such circumstances, would rapidly result in adhesion, and render the strangulation of the intestine dependent, to a partial extent at least, upon the peritoneal ring so formed. Is it safe, then, to simply divide the outer band of stricture and return the sack and its contents into the abdominal cavity? My own opinion is that in these days of antiseptic surgery when wounds of the peritoneum are not considered dangerous, that the plan advocated and followed by Bangs, of England, Marcy, of Boston, and others, viz: The ablation of the sack should be followed; the fissure in the peritoneum so produced closed with carbolized animal ligatures; the pillars of the inner ring approximated and held in position by the same material, and the external wound closed with antiseptic precautions.

POST-PARTUM POLYPOID TUMORS.

BY HENRY G. LANDIS, M.D., COLUMBUS, OHIO.

[Read to Section on Obstetrics and Diseases of Women, June, 1883.]

The title of this paper is intended to indicate that its subject-matter is concerned with tumors, 1st, which resemble polypi, more or less; and 2d, are found only after delivery. I will further restrict it to labor at full term, since the conditions after abortion differ clinically in some respects, and open too wide a field.

The subject is one of great practical interest. Not infrequently the physician is accused of having left a piece of the after-birth behind—of not completing the delivery. A patient has secondary hæmorrhage or

septicæmia, in the course of which are discharged or removed masses of fleshy or membranous consistence, which the old women or an unfriendly colleague pronounce to be "a bit of after-birth," greatly to the detriment of the attending physician.

I believe that, as a matter of fact, the detention of a fragment of placenta after labor at full term is a rare occurrence, though perhaps the same could not be affirmed of the membranes. I once witnessed a case in which the perinæum had suffered a complete laceration. The accoucheur, apparently excited by the accident, immediately introduced his hand into the womb, and, with a clutch, brought away about one-half of the placenta, leaving the remainder for me to extract, not without difficulty Such ignorant brutality is certainly uncommon, and without it, the placenta is generally, sooner or later, expelled entire. The conditions which, no doubt, are often mistaken for this accident are as follows:

1. Attached fibrinous coagula; the free polypous hæmatoma of Virchow. Slight oozing of blood may take place from a sinus imperfectly closed by a thrombus. The blood clots form gradually, and in somewhat concentric layers, until we have a tumor which feels very like a polypus, and hard enough to bear considerable handling. According to Schroeder, "a peculiar roughness or too great projection of the placental insertion into the uterine cavity appears chiefly to predispose to their formation." He mentions, however, having seen two cases in which there was no question of excessive roughness. The firm structure and laminated appearance of these slowly formed clots are no doubt occasionally misinterpreted by those who examine them hastily. Inasmuch as these blood-polyps have been found under many and varying circumstances, we are at present unable to determine exactly even the principal predisposing causes. A remarkable feature in their clinical history is that for quite a long period, comparatively, their presence is unattended with harm. Our attention is first called to their existence by a sharp attack of secondary hæmorrhage. This may occur in the first week, but has been postponed to the third week after delivery. The hæmorrhage may be immediately fatal, or, if timidly treated, may recur to a dangerous extent. Septicæmia is also apt to follow the hæmorrhage.

Unless the patient succumbs to the first flow of blood there is little to fear from these tumors. Their removal is not difficult, and is usually followed by prompt recovery—which will be expedited by the free use of iodinized intra-uterine injections.

2. A priori, fibrinous clots might be expected to form more frequently when a fragment of placenta adheres to the uterine wall.

The authors who mention the subject seldom detail cases, and I am not sure whether direct observation or inductive reasoning has guided them in their remarks. There is at least a possibility that some cases have been confounded with, or rather wrongly taken from, the next two classes of which we will speak. Courty[1] figures a blood polyp attached in this manner, but if the cut is approximately correct there is room for doubt whether the attached mass is placenta or hypertrophied decidua. Admitting the occurrence as probable, but much more rare than its comparative prominence in books would warrant, we have a second form of polypoid tumor consisting of a mass made up of placental tissue and clotted blood. This form causes the same symptoms as in the mere blood polyp, but is both more difficult to remove and more dangerous to life.

3. The decidua vera or scrotina may become in part detached during the labor. Small strips of mucous membrane are thus left dangling from the uterine walls. This condition directly favors the stalactitic growth of blood-clots, and is probably the most frequent cause of their formation. Winckel[1] gives full details of a case of this character. Dr. Munde's case reported in March, 1883, (*Am. J. Obst.*, and elsewhere), appears to have been similar. When these tumors are removed, the laminated structure of the clot, interspersed with shreds of decidual membrane, are very liable to be taken by a careless observer for placental tissue. Such mistakes are not likely to be made by experts, but I speak of things as I find them. Thus we see that we may have polypoid tumors composed of blood, either formed in a normal uterine cavity or connected with placental or with decidual fragments.

4. A fourth form is thus briefly noted in Barnes[2]: "C. Braun (1851) describes the *placental polypus*. This results from the remains of the placenta, consisting of hypertrophied decidua, which, projecting into the uterine cavity, forms a polypoid mass." This, it will be noted, is a very different thing from either retained placenta or prematurely detached, but otherwise normal decidua. It results from the hypertrophy of the decidua scrotina, or vera, due to inflammation or intense localized hyperæmia. I have not had access to the original paper of Braun, nor have I been able to meet with the record of any other cases. A detailed report, therefore, of two cases observed by myself may be of interest:

CASE I.—Mrs. F., æt. 27, third pregnancy. Labor continued for eight hours, nothing noteworthy occurring until after the birth of the child, a male weighing ten pounds. The method of Credè was then instituted, but a half hour elapsed before the placenta was finally shot out of the vulva. The membranes resisted considerable traction, and required to be much twisted before they could be withdrawn. The afterbirth was then carefully examined. It was of irregularly oblong shape, and "battledore." One or two small patches on the maternal surface presented the appearance of recent adhesion. On the membranes, about an inch from the placental edge, was a patch one and one-half inch in diameter, of roughened and flaky surface, and stained in spots by hæmatin. There was no history of inflammation during pregnancy, notwithstanding the presence of plain evidence of adhesion of both placenta and membranes. The womb was well contracted, and the patient comfortable in all respects.

Convalescence was uninterrupted, the patient being allowed to sit up on the eleventh day. On the even-

[1] Dis. of Uterus and Am. Ed., p. 675.

[1] On Child-bed, p. 157.

[2] Diseases of Women, second American edition, p. 689.

ing of the twelfth day (post partum) she suddenly, while nursing the baby, suffered a copious hæmorrhage, and when I arrived an hour later, was still leaking, with a rapid pulse and exsanguined appearance. An examination showed the rectum to be so loaded with fæces as to prevent access to the os uteri. Knowing this to be a not uncommon cause of secondary hæmorrhage, I at once administered an enema with prompt effect. On then introducing the finger into the womb I found that it contained a mass of firm tissue with polypoid knobs—but no blood clots. At the lowest end of the mass I found a slightly detached edge, and with a prying and sawing movement of the finger, succeeded in detaching the greater portion of it, until I could no longer reach to a sufficient distance. By this time, the condition of the patient demanded a cessation of hostilities, and having injected into the womb a strong solution of iodine, she was allowed to rest until the morning. No hæmorrhage nor pain during the night. In the morning, assisted by Dr. Loving, I proceeded to remove the mass, which had shrunk in size, since its partial detachment, and was attached like a veritable polypus at the fundus. The placental forceps brought away the greater part at one seizure, but a small fragment was unavoidably left for spontaneous detachment. Intra-uterine and hot water vaginal injections were used from this time, and the patient entirely recovered with the following remarkable diversions, viz.: A chill occurring exactly one week after the hæmorrhage, another one week after that, and a third slighter chill just one week later. The free use of arsenic finally controlled them. It may be added that she had been a frequent sufferer from ague from her youth up.

To return to the tumor. While dissecting up the mass from the uterine wall, the conclusion that it must be a retained cotyledon of placenta was forcibly present. This was negatived by the careful inspection previously made of the placenta, and also by the density and comparative thinness of the mass. This also militated against the supposition of a "*placenta succenturiata.*" Doubts were resolved when the mass was removed. Macroscopically it was unmistakable uterine mucous membrane, although over a half inch in thickness.

Being referred to Dr. A. M. Bleile for microscopical investigation, he reports:

A hardened and stained section exhibits:

1. And principally, connective tissue with large number of cells.
2. A few tubules.
3. Blood vessels of respectable magnitude.
4. Free surface, covered by columnar epithelium.

The whole giving the impression of uterine mucous membrane, in which the tubules are widely separated by embryonic connective tissue.

We have, then, here a case in which a relatively enormous hypertrophy of the decidua took place, resulting in a mass too large to be disposed of in the usual and physiological manner during the process of involution. That the cause was inflammatory may be inferred from the adherence of the fœtal envelopes, notwithstanding the apparent health of the mother during gestation. That the predisposing cause was malaria is suggested by the subsequent history.

Case II.—Mrs. D.. æt. 23, primpara, delivered Feb. 12, by a midwife. By a curious coincidence nothing retarded convalescence in this case until the twelfth day after labor, when a sharp hæmorrhage occurred. Unfortunately the midwife did not appreciate the possibilities of the case, and it was not until after three days and repeated hæmorrhages that I was called. I then found in the uterus several fibrinous polypi, which, when removed, were found to contain small shreds or flakes of membrane. After their removal the posterior wall of the uterus was noticed to be roughened or rather nodulated, and, a fragment being removed, proved to be mucous membrane. The midwife insisted that the placenta had been removed entirely, without difficulty, and by the method of Credè. As in the former case the condition of the woman was so low that I was compelled to defer further proceedings for the time, using hot water copiously in the interval. At a second sitting I succeeded in removing further bits of decidua, after which the uterus gave no further trouble, as the woman advanced to complete but slow recovery. For several weeks the extreme bloodlessness of the patient had to be combatted, and this was followed by œdema of the lower extremities with phlebitis. During the course of this she had many chills, alternating with fever. To make a diagnosis of malarial poisoning under such circumstances is somewhat hazardous, yet I am inclined to think that a malarial element of causation existed also in this case.

MAN ACCORDING TO NATURE.

[Address before the District Medical Society of the Eleventh Congressional District of Ind., and published by request of the Society.]

BY WILLIAM H. SCHROCK, M.D., DECATUR, IND.

The laws governing our physical origin and development are so numerous and so imperfectly understood, and still less perfectly obeyed that we exclaim how fearful and wonderful the result.

With all the recorded facts of the past, scientific men of this age ought to occupy a higher plane of action, in defense of nature's laws. Man's spiritual nature has been so clearly taught, and the laws for its progressive growth till its final consummation in perfection at death in Christ so well obeyed, that the believer in and obeyer of the Bible furnishes the world with the highest and most perfect psychical type of man.

For elucidation and verification of this statement we refer you to those individuals, communities, states and nations that receive the Bible as the word of God, and who accept and obey its legitimate teachings, in contrast with those individuals, communities, states and nations that reject the Bible as the word of God, and deny and disobey its teachings.

We desire to direct your attention, to-day, to a brief consideration of nature's laws, so far as they pertain to our origin and development from elemental life to its final consummation. In so doing, we shall avoid whatever might lead us into a dissertation upon the inherent force of cell life or the physical

laws of our being, but shall confine ourselves to the investigation of the laws of our physical being.

Consequently, we have these three propositions to submit:

1. A perfect physical being can only emanate from perfect germ elements.

2. Perfect physical growth results only from full and complete obedience of all the pertaining laws.

3. A perfect being only can completely fulfill the mission of its creation.

As we can have a round body only when every point of its circumference is equidistant from its center, as we can have a straight line only when every point of it lies in the same direction, so we say a perfect physical being can be developed only when we have perfect germ elements, because of the inherent property given each of these, however unlike in nature and incapable of variation.

Since we have infinite deviations from a round body or from a straight line, so have we deviations from perfect germ elements, producing results varying from the slightest abnormalities to the greatest monstrosities of the human organization.

The difference may exist in the nervous, muscular, vascular, glandular, or osseous systems, separately or in combination in their primal organization, or may manifest the defect psychologically only. It does not necessarily follow that every perfect germ element will produce a perfect being.

A perfect germ in its development will follow nature's law perfectly, providing its environment be in keeping with its organization and no extraneous causes interfere.

What these extraneous causes are, their influence, and how to eliminate them is the proper function of the educated physician and philanthropic scientist.

Recognizing the infinite wisdom of creating an intelligent being with perfect freedom to do as he may, subject, however, to the consequences of obedience or disobedience of the laws given for its control, it becomes us to know these laws, and, knowing, to obey them, and impart this knowledge to others. Until those who make a pretension of knowing the intricate laws of cell development, from its initial existence to its last stage as a living organism, shall by their example demonstrate that their belief and knowledge are in harmony; it cannot be expected that they who are ignorant of these developmental laws of cell growth will do much for themselves contrary to the desires of their grosser natures. As these laws are better understood and obeyed, elimination of whatever is detrimental, and the retaining of whatever is advantageous to the production of a being more nearly perfect, we shall by unequal steps of approximation, in the course of time, reach what is now capable of theoretic demonstration—a perfect physical and psychical man.

This approximation cannot be by regular progression, for its advance will be in subjection to the tide of public opinion as wrought upon by the variable forces of positive teachers and cotemperaneous circumstances. When we seek for verification of this statement in the highest civilization that has existed, we are, from a superficial examination of presented facts, and statement of facts, startled at the revelation, and led to doubt the position taken. But from a more deliberate and exhaustive examination, we are logically brought to a most encouraging result. Finding the very highest type of mental, physical and moral development of man wherever the laws of nature were obeyed, however ignorantly.

Wherever and whenever the hygienic laws of the Mosaic dispensation were obeyed, there and then do we find marked progression toward a better physical man. "Nature's edict," "The fittest only shall survive," produced wonderful results in eliminating the halt, maimed, and diseased from the first peoples of all lands: but not so in the same degree in the older nations and better provided for people; when disease in its multitudinous forms has been more successfully combatted by the competent physician; its victims rescued from premature death, and their lives prolonged to *inflict* their ills upon their *unfortunate* progeny. We have health boards organized in nearly all of our States and larger cities to warn and forearm the people against epidemics of contagious diseases and epidemics modified by local causes, and most gratifying results have been obtained. Many noble acts of self-sacrifice are on record, performed by our enlightened sanitarians.

But when the time lost, money expended, affections severed, homes made desolate, and deaths recorded, are totalized and set opposite to the result of the unions made through the sanctity and shielding power of the marriage vow, of the alcoholic, intemperate, phthisical, scrofulous and syphilitic persons in families, the results of the former sink into insignificant nothingness. And what is being done by the physicians, the people's health conservators to educate and warn the uninformed laity of the devitalizing, decimating results of these diseases as they are transmitted by father to child as its chief heritage?

In view of these things, we have no reason to be horrified at the seeming cruelty of the Roman father when called upon by the midwife, as she coldly points to the new born infant just laid upon the ground awaiting the father's order. If the father finds the child to be a likely one, he says to the midwife, "tollere infantum," and the child is straightway cared for. But if the child be defective in its physical organization, the father exclaims "exponere," and the child is left to perish. Thus by elimination of defective elements by this cruel and diabolical process the Roman Empire was enabled in a great measure to obtain and retain a very high type of physical man.

Had they studied the laws of physical development and heeded the divine law so plainly taught in the Mosaic dispensation, far better results would have been secured than by the fearful crime of murder. In this mode of renovating and keeping the physical man up to its highest standard, however cruel and inhuman, they were far in advance of their illustrious predecesors. As knowledge spread disseminating the beneficent blessing of greater revelations of nature's laws, these modes of elimination ceased. As population spread over Western Europe, frontier life, the

many wars waged, the want of proper care of weak children, and the exposure of enfeebled adults, were the renovators of the human family, and in a very great measure preserved and advanced the standard of the physical condition of man.

In the progressive advance of national development, greater care on the part of individuals, the establishment of eleymosynary institutions and hospitals, the advance in medicine, all have so nurtured the abandoned, provided for the maimed, and suppressed the active manifestations of the constitutionally diseased, that they are permitted and enabled to form marriage unions resulting in progeny, defective, dependent, and to be cared for as themselves.

These, however, are not the only obstacles to a pure and perfect development of physiological man. We quote from Dr. Kidd, author of "Laws of Therapentics," who relates a history of the course of a disease in a family, the effect of which is to strikingly illustrate if it does not demonstrate the transmisibility of Bright's disease A woman, two of whose brothers had died of this disease in early manhood, who herself died of it aged sixty, was the mother of twelve children, seven of whom died of it, and two grand-children are now afflicted with the disease. If the two brothers and one sister were the only members of the family, what a mortality! Of the second generation we have seven deaths out of twelve children, a mortality of 58⅓ per cent. In the third generation two members are already victims and may be soon gathered as early fruits of an injudicious marriage. We draw from our own observation the following, to illustrate at least what may occur from a scrofulous diathisis. Mrs. F, mother of six children, whose maternal parent had scrofula, had before her marriage several glandular abscesses about the neck and great sympathetic disturbance of left eye. The husband, a man of splendid physique, five feet eleven inches, sanguine temperament, and weighing about one hundred and ninety pounds; never from youth to present time has been sick, save an attack of remittent fever in the fall of 1865. The two first children died in early infancy after repeated scrofulous abscesses of head and neck. Soon after the birth of the second child the mother lost the use of the left eye. One child was born blind in one eye and lived only six months. A third child was born blind in one eye, lived to be nearly four years old and died from exhaustion resulting from repeated abscesses. Two only of six children reaching adolescent life in reasonably good condition but not free from scrofulous abscesses.

For the hereditary effect of alcoholic intemperance permit us to quote Pultzel, page 63: Father was a periodical drinker. By his first wife (who was healthy) he had four children, two daughters, one of whom was insane and the other imbecile (neither of these had children) and two sons, one of whom had an epileptic child and one an insane child.

By the second wife (also healthy) he had three sons; one died of epilepsy; one was epileptic and had an insane child. The third son had seven sons, all of whom had fits in infancy; one a confirmed epileptic; one suffered from epileptic insanity. Here we have a brief history of seventeen children of the first and second generation, and only two of whom are put down as healthy, free from disease traceable to the periodical use of alcohol by the father. Had the two healthy mothers been addicted to periodical drunkenness, what would have been the result?

Thus have we briefly brought before us the theoretical and demonstrated instances verifying the correctness of the proposition, that a perfect physical being can only emanate from perfect germ elements. What a vast field for the practical utility of preventive medicine, to eliminate defective elements by the dissemination of demonstrated facts; facts which, when recognized and their lessons heeded, shall bring incalculable physical wealth, indescribable joy, and a hearty acquiescence to all the laws governing ourselves and all about us.

The second proposition, "A perfect physical growth results only from full and complete observance of all the pertaining laws," is so evidently axiomatic that an effort to demonstrate its truthfulness would becloud its clearness. Hence we will consider the third proposition, viz: A perfect being only can completely fulfill the mission of its creation. This proposition might be negatived by the statement that there is no perfect physical being, which is true to a very large extent, but not wholly so. If it were so, it does not invalidate, but rather strengthens the verity of the statement. It also demonstrates that the principles of the first two propositions have not been obeyed; and hence the necessarily imperfect result.

Were we to travel outside the realms of man's physical creation to demonstrate the position taken, there is none to deny that an imperfect locomotive can not completely fulfill its mission. There are but few persons, if any, but believe that any malformation of an internal or external character will modify or retard one's ability to acquire accomplishments or perform labor. Hardly can we hope to find an intelligent person believing that a supernumerary finger retards the social and mental progress of its unfortunate owner, and yet it will, and does. I have known even a double thumb nail on left hand to so annoy a girl of fifteen years, that she never could acquit herself in class recitation equal to her ability. History informs us that our most successful men and women have been very high types of physical organization, have very closely kept the laws of physical growth, and consequently have quite well, though not completely, fulfilled the mission of their creation,

To accomplish these most desirable results we suggest that the conservators of the people's physical well-being improve every seasonable opportunity to bring this subject before the lairty, that they may think of it, discuss it, and ultimately adopt its teachings, so that marriage alliances shall be entertained and consummated by the parties most nearly approaching a perfect standard of physical and mental development, being free from the contaminating influences of constitutional diseases.

We certainly are not responsible for the pre natal influences which circumscribed our physical and mental condition, diseased or healthy. But we are

certainly responsible for circumscribing the mental and physical condition of our children. Most wisely have the several States of this grand nation acted in part, upon this very important feature of man's physical growth. But their authority has not yet been exercised coextensive with their duty. While they rightly and justly prohibit the marriage of imbeciles, idiotic, insane, and blood-relatives, to the fourth, and in some States to the sixth degree, we have no doubt of the prosperity and preservative need of prohibiting, by statuatory enactment, the marriage of phthisical, scrufulous, and syphilitic persons.

MEDICAL PROGRESS.

LEMON-JUICE AND OYSTERS. Paris Correspondent *Lancet*, June 30, 1883.—M. Cortes, a distinguished microscopist and biologist, decides from his researches, that the practice of using lemon-juice with oysters is not only a matter of taste, but that it also has its utility, as lemon-juice has the property of destroying the animalcules which infest the stomach of the oyster.

METALLOTHERAPY IN OBSTINATE HYSTERIA. RAPID CURE BY ALUMINUM. V. BURG and J. MORICOURT, *Comptes Rendus*,, etc., *de la Societé de Biologie*.—This is a case the details of which are given at length, of a girl æt. 20, affected with hysteria of four years' standing, which manifested itself by a constant barking like a dog, with absolute anæsthesia of the left side and complete abolition of taste and smell. The abdominal muscles were in such a state of atony that it was impossible to evacuate the bowels except by enemata. The body in various places was affected by bands of redness with an indurated base, which, on disappearing, left behind them a pearly whiteness, like the marks in pregnancy. The patient had been treated by several physicians, Charcot among others, and had used all the antispasmodics—arsenic, electricity and hydropathy. For three consecutive months she had been seated on the electrical stool one or two hours daily, and for two years she had been douched winter and summer, without regard for the menstrual periods * *

She was submitted to the test of metalloscopy, which resulted in a response to aluminum, and a solution of sulphate of aluminum (10 drops of a solution of 1-200) was injected under the skin of the left thigh, which in 20 minutes removed all traces of anæsthesia. After this result was obtained, a large plate of aluminum was applied to the left leg. In a few days sensibility became greater than normal in the greater part of the affected side. Injections at the larynx of 5 to 6 drops of the solution, produced in five months a return of the sense of taste and of sensibility to the tongue and palate. Consequently the following treatment was ordered: 1. Permanent applications of an armature of aluminum around the neck, left arm and thigh. 2. To take every day one to two pills containing 0 gr. 03. cent. of sulphate of aluminum, with the result of, two days later, the complete disappearance of the barking, and a regular action of the bowels. The case now went on rapidly to convalescence, with but one drawback—two of these pills being taken one day, produced a diarrhœa. In 28 days the patient was discharged cured, being relieved of all her nervous symptoms, and not only had the red patches entirely disappeared from the skin, but the old stigmata were almost entirely effaced. During the treatment, the strength of the solution was increased to 1-100, and the patient increased in weight accordingly.

ON IODOFORM PLASTER. DR. A. PAPE and Apothecary FISCHER in *Der Praktische Arzt* for July, 1883. Not being satisfied with the use of iodoform collodion, or iodoform ointment as neither of them permit a constant and long-continued application to the skin, have prepared two plasters: First, emplastrum iodoformii fortius. ℞. Iodoformii pulv. 100.0. Empl. adhæs 200.0. Empl. Plumbi Spl. 200.0. Second, empl. iodiformii mitius. ℞. Iodof. pulv. 50.0. Empl. adhæs 300.0. Empl. plumbi spl. 300.0. These plasters adhere well, and can be removed without much difficulty. Dr Pape gives several cases of acute and chronic local glandular swellings, with pain, where the plaster gave much relief after other preparations of iodoform had failed. The plaster remained on for from five to six days.

The empl. iodoform mitius is applicable to the skin in such conditions as frost-bites. Dr. Pape refers to a case of pleuritis exudative which is still under treatment, and in which already, after the application for eight days of the stronger plaster, total resorption of the exudation has taken place.

CANNABINUM TANNICUM is a glycoride prepared from the semen Cannabis Indicæ, by E. Morek, of Darmstadt (*Der Praktische Arzt*, July, 1883), and is recommended as a mild and safe hypnotic which has no disagreeable after-effects. It has been used by Dr. Hiller in a number of cases of sleeplessness where there was no special pain, mostly in phthisical cases who had previously taken morphia and where sleep during the whole night was produced by an evening dose of 0.5 gram. Only one patient complained, on awaking, of headache and discomfort, and in this case it was doubtful as to whether they were not due to indigestion. No vertigo, indigestion or effects upon the pulse, or respiration had been noticed in any other of these cases. The number of cases in which this drug has been tried is, so far, very limited.

The dose is from 0.3 to 0.5 grams, and the most agreeable form of administration is the powder mixed with sugar. The taste is not disagreeable—slightly astringent, like tannic acid. The smell is like rum.

A CASE OF COMPLETE ADHESION OF THE TONGUE TO THE FLOOR OF THE MOUTH.—M. Duplong communicates this case to the Société de Chirurgie de Paris, which is reported in its Bulletins and Memoirs, July 5, 1883, for the purpose of eliciting discussion as to the best means of relieving the affection. It occurs in a child aged two and a half months; the parents have no vices of conformation,

but the grandmother had an ectromelia of the right hand, which is reproduced in this child; also a difficulty in speaking, the cause of which was not made clear. The child presented a pitiful appearance, with a very notable disproportion between the superior and inferior maxillæ, while the lips and superior maxillary were well formed; the inferior maxillary had undergone an arrest of development. That portion of the inferior maxillary bone which corresponds to the incisor teeth was less elevated than at the sides; the soft parts of the upper hyoid region are less thick than in other children of the same age, and the tongue, adherent throughout its deep surface to the floor of the mouth, is very much diminished in size towards its point; it is continuous anteriorly with the gingival mucous membrane which covers the incisive portion of the bone, so that there is no appreciable line of separation. Outwards and backwards from this point a deep furrow is plainly seen bordered by the lateral portions of the tongue. The finger placed over what should be the tongue feels a marked diminution in size of the anterior third of the organ, which is there reduced to a simple membrane, while posteriorly it preserves a thickness which should be sufficient assurance of its functions were it liberated from its attachments. It is felt contracting during the efforts at deglutition, and the lateral portions in the posterior, two-thirds of the tongue thus show that they are provided with a muscular texture; but it is very difficult to know exactly if, towards the middle of the tongue, the coalescence with the floor of the mouth is absolute. In the efforts at sucking the whole of the supra-hyoid region raises itself and suction becomes impossible. The child can only be nourished by means of the spoon, and its alimentation is curiously interfered with by the suffocation produced during deglutition.

As to the ectromelia of the right hand, inherited from the grandmother, it consists in an atrophy of the thumb, in the absence of two phalanges of the index, the absence of the medius, and the reduction of the ring finger to two phalanges; the little finger alone is perfect.

M. Duplong proposes to attempt to relieve this condition by using the thermo-cautery cautiously and separating the parts with the spatula or finger. In the discussion which ensued it was thought that unless a mucous covering was provided for the liberated surfaces, there would be a readhesion of the parts, and it was a question as to where that mucous covering should come from. M. Verneuil proposed to take this covering from the upper surface of the tongue, laying it back over the liberated portions, and, at the same time, piercing the tongue with sutures so as, by drawing on them, to give the tongue a cylindrical shape. M. Mare Sée suggested the taking of the mucous membrane from the inner surface of the cheek in strips, to be left adherent to the cheek until after their cicatrization on the tongue itself.

NOTE ON DISINFECTANTS.—Dr. W. E. Buck writes: Most practitioners must have often realized the inefficiency of disinfectants in allaying the fœtor of cancerous ulcers an annoyance which sometimes troubles patients even more then the pain, or the thought of death. I have used the whole round of disinfectants for cancerous ulcers, but all have failed in allaying the fœtor and keeping the ulcer clean. The ditinfectants tried were carbolic acid, sanitas, terebene, resorcin, creasote, boroglyceride, chloride of zinc, charcoal, etc. After failure with these, I tried a saturated solution of hyposulphite of soda added to an equal quantity of water, and found it exceedingly efficacious. The ulcerating surface was well syringed and washed with the solution, and was then covered with rags steeped in the solution. The granulations were kept clean, and the fœtor was well kept under. Most disinfectants seem to lose their virtue after a few days' application, but I have used this one for months in the same patient with continuous good effects. It is cleanly, has no smell, does not stain, and is very cheap.—*British Medical Journal.*

THE PRESENCE OF BACILLUS TUBERCULOSIS IN AN ABSCESS NEAR THE ANUS.—Dr. Robert C. Smith writes: Six months ago a young clerk aged 21 came under treatment for hæmoptysis and other signs of phthisis. After about three months' treatment he became strong enough to resume his employment, at which he continued up to the commencement of this month. I saw him on the 5th, when he was suffering acutely from an abscess in the neighborhood of the anus; and, fearing lest it might burst into the bowel and give rise to a painful blind internal fistula, I opened the abscess at once and let out a quantity of thin, curdy, fœtid pus. A microscopic examination of this fluid by a half-inch object-glass, after the usual process of staining, revealed the presence of great quantities of well-marked typical tubercle-bacillus. Now, the presence of these organisms in this situation is interesting, as they tend to throw some light on the well-known connection between fistula and phthisis.—*British Medical Journal.*

ON CYSTOTOMY BY A MODIFIED LATERAL METHOD IN CERTAIN CASES OF ENLARGED PROSTATE.—Mr. Reginald Harrison, F.R.C.S., Surgeon to the Liverpool Royal Infirmary, writes:

"Within recent years, I have had cases where it has been found expedient to make an opening from the bladder into the perinæum, in preference to other measures, the usual means of relieving obstructed micturition, or the consequences arising therefrom, having failed or proving insufficient.

"I may premise by stating that, apart from those cases of obstruction complicated with circumurethral abscess, no such proceeding has been undertaken on the sole ground that catheterism was impossible, though some difficulty connected with the performance of the operation has, with other circumstances, usually been present.

"The selection of a method for opening the bladder should have reference only to the object to be attained, or the contingencies that may arise. If, for instance, we desire merely to introduce the finger into it, as a preliminary to extracting a small stone,

the median operation answers perfectly; while, if a larger stone, or an unknown quantity of anything, has to be dealt with, the lateral incision will, as a rule, be preferable.

"It has been advanced by those who favor the median incision, which is practically an urethrotomy, that it is both simple and safe; its admitted disadvantage lies in the small space it provides for manipulating and extracting; while, on the other hand, the lateral incision, though affording more room, is considered to be attended with an increased risk and a greater degree of difficulty, so far as its performance is concerned. The median operation need not necessarily involve anything more than the opening of the membranous urethra. The completed lateral operation further includes the division of structures constituting the neck of the bladder; and it is to this part of the proceeding that any increased risk or difficulty is to be attached.

"A little reflection shows that it is possible to closely assimilate the lateral with the median operation; that is to say, to dispense with the incision, not to the staff, but along the staff, should it be found, on exploration with the finger, that the additional room which the latter part provides is unnecessary for the object in view. It need hardly be said that this modification of the lateral method, where it is found, on digital exploration, to be feasible, frees the operator from executing the only portion of the operation to which any increased risk is attached; while, on the other hand, he has the consciousness that, should it turn out to be necessary, he can, by the completion of the deep incision along the staff, avail himself of all the advantages which are conceded by surgeons to the lateral method of opening the bladder." Mr. Harrison illustrates his method by the description of a case.—*British Medical Journal.*

ALBUMINURIC RETINITIS OF PREGNANCY.—Dr. Ryerson, of Toronto, writes:

"Mrs. E., aged 22, was referred to me by Dr. Temple on June 1st, 1881, with the statement that the urine contained a large amount of albumen. The patient stated that her sight had been failing for about a month. She said she could see the sides of an object, but not the center; and complained of flashes of light in the dark. She had fronal headache, sometimes severely. She had no pain in the eyes. There was a great deal of nausea and vomiting. She was in the fourth month of her first pregnancy. With the right eye she saw fingers at five feet, and read 16 Jäger; with the left she saw fingers at three feet, and read 20 Jäger. With the ophthalmoscope I observed in the right eye a well-marked stellate arrangement of deposits about the yellow spot, with numerous patches scattered about the retina. The optic disk was somewhat swollen and indistinct in its outline. The appearances in the left eye were very similar, with the addition of numerous small hæmorrhages in the lower half of the fundus.

"Dr. Temple informs me that shortly after this she was seized with convulsions, and had a miscarriage. She made a good recovery, and when I saw her again on August 4th the swelling of the optic disk had greatly diminished; the scattered patches were less marked, but stellate patches in the region of the macula were about the same as when first seen. In the right eye two veins apparently contained thrombi. The vision was with the right eye, $^{20}/_{50}$, 16 Jäger; with the left eye, $^{20}/_{50}$, 16 Jäger. She could manage to write a letter. From Dr. Temple I learn that she regained good vision, but did not myself see her again. In a few months the unfortunate woman became pregnant again, although warned of the danger; convulsions supervened, and in one of them she died.

"REMARKS.—It would be of considerable interest to learn in what proportion, and in what class of cases of albuminuria of pregnancy, retinitis occurs. That it does not necessarily occur, I know, having attended some years ago two cases in which there was no complaint of trouble of vision. One case, a woman of about thirty years, in her fourth pregnancy, made a good recovery. The other had uræmic convulsions, and died. I did not use the ophthalmoscope, but relied upon the patient's statements, the cases having occurred in my pre-ophthalmoscopic days."—*British Medical Journal.*

ON A CASE OF OBSTRUCTIVE JAUNDICE OF AN UNUSUAL NATURE.—H. Mallins, M.B., etc. *Lancet*, June 30, 1883. An officer of the Indian army was attacked October 13th with mild intermittent fever, but with a good deal of nausea and vomiting. Two days subsequently a decidedly yellow tinge of the conjunctiva was noticed, and a week later well-marked jaundice was developed, with its usual accompaniments of whitish stools, dark-brown urine, etc. The appetite was not much impaired, but the ingestion of nearly every kind of food procurable was attended with so much subsequent nausea that the amount of nourishment taken was extremely small. Three weeks after the full development of jaundice, yellow vision and intense irritation of the skin, particularly that of the lower extremities, were complained of. No enlargement of the liver could be made out; very slight tenderness, on pressure over the region of the gall-bladder, was the only local indication. Emaciation became so marked, that after trying change of locality he applied for and obtained furlough to Europe. On January 18th, at Bombay, he had occasion to go to the closet, and while inspecting the excreta discovered a large ascaris lumbricoides, apparently dead, one end of its body to the extent of half an inch being of a deep green color. The very next day the stools began to exhibit a slight amount of the normal bilious hue. Ten days after embarkation their color was quite natural, and before landing in England convalescence was satisfactorily established.

A CASE OF MONSTROSITY. Dr. Raverty describes the following case of a sireniform fœtus:

"I was called to attend Mrs. D., in her fourth confinement, on May 9th, 1883. On my arrival I found the water had come away about twenty minutes before, and projecting from the os externum was a fleshy mass so unlike any usual presenting part of the

fœtus to the touch, I was quite at a loss what to make of it. However, another pain coming on solved the riddle at once, the feet and leg or legs being expelled; and in a short time the shoulders and head followed. The child was alive, and continued so for eight hours. The mother made a good recovery. From the head downwards to about midway between the sternum and the umbilicus it was in every respect well formed, and to outward appearance perfectly natural. From about that point the following particulars were noticed: There were no projections at the usual site of the crests of the ilia. The abdominal cavity was small, and seemed to be almost destitute of contents. The genito-urinary organs were represented by a small round aperture surrounded by a slightly elevated fleshy ridge (represented by a lower dot in the figure). The limbs were enclosed in one continuous fold of integument, although the bones could be felt quite separate underneath; and in front there was a slight depression marking where the division ought to have been between the limbs. There was no separation of the buttocks; in fact, there was very little of the usual projections at this point, and there was no anal orifice. The feet were joined together at the heel and partially so at the center of of the foot, but the toes were well formed, in the usual number, and free. I would have liked a *post mortem* examination, but the parents objected. The mother said she had only gone eight months. There was no history of a fall or fright, except a bad dream about the fourth month.—*British Medical Journal.*

THE POLITICAL POWERLESSNESS OF THE MEDICAL PROFESSION, ITS CAUSES AND ITS REMEDIES.—This is the title given to the annual presidential address before the Birmingham and Midland Counties Branch of the British Medical Association, by Balthazar Foster, M.D., F.R.C.P., as reported in the *British Medical Journal* June 30, and it would well repay the reading to print it in full in these columns. A political doctor striving to make professional capital out of his relations to party and party feeling is a different thing from the public-spirited medical man interested in the welfare of his locality, State, and general government; whose education fits him for a consideration of many of the political questions of the day. Does not his position in the community also demand that he express his views freely? He may see his member, for instance, who was perhaps a patient, and who was certainly dependent, in a measure, upon his vote and his influence, if he chose to exert it; make a record in Congress upon some sanitary question affecting the whole country, or in cutting down appropriations for institutions that are the pride of the profession—in a way that ought to make him ashamed of his declining to mix in political matters for fear of being considered like the doctor who is making capital out of his politics.

Dr. Foster reviews the medical acts of Parliament—the necessity for medical representation in the House of Commons, and cites the Cruelty to Animals bill as an example of the character of legislation. "A sickly sentimentality, half-sister to that æstheticism which made a large section of society contemptible to healthy and robust manhood, was allowed to influence the legislature at the expense of knowledge, and in opposition to the protest of a profession, tender, trusty enough to hold in its daily charge the lives of our dearest and best, but yet, forsooth, so full of devilish cruelty that it could not be trusted with a cur or a cat." He refers to the evils which will accompany the Practical Abolition of the Contagious Diseases Act, and feels anxious that it may be followed by one encouraging anti-vaccination. "As a class, we are too timid and too reticent; we fail to take our due share in the public work of the communities in which we live. The nature of our daily work is to many of us so absorbing in its interest, and demands so much of our time for calm, careful reflection, and for scientific investigation, that we turn, with the dislike of philosophers, from the noise and dust of the forum. With some of us, probably, there may be a lurking fear that pronounced opinions on political and social questions are apt to injure a doctor in public estimation, and so to lessen his professional influence and his pecuniary profits. In the sad quietude of the sick-chamber, where the finer issues of life and death have to be weighed, the brawling politician would jar on the sensitive nerves of the sufferer, truly; but we need not be brawling politicians, nor need we allow political questions to so occupy our thoughts as to interfere with that absolute concentration of mind on the case of every patient, which is essential to the most perfect performance of our work." "In my experience, personal and collected, I have been able to find few, if any, examples of permanent injury to a medical man, from any manly and proper action in his capacity as a citizen. I have heard of cases of failure attributed to political partisanship, and also of cases of success, both of which could be easily explained on ordinary personal grounds." "The public do not trust a man in illness because he agrees with them in politics, it is because they have confidence in his professional skill and integrity; and if in any case the scale of favor is turned against us by so slight a thing as political preferment, believe me, the balance of esteem between the patient and the doctor is not worth preserving."

"At the last general election, while lawyers stood by scores, not a single medical practitioner went to the poll in the whole of England. In other nations this is not so. In Germany, the world-renowned pathologist, Virchow, was the leader of a powerful party in the Prussian and German Chambers. Among the deputies of France, one of the most powerful leaders and the probable successor of Gambetta is a doctor; and till recently a distinguished physiologist held a ministerial portfolio. In Italy the same conditions hold good, and at the last election, seventeen medical men were elected by the people for parliamentary work.

"We, as a profession, know the wants, the sufferings and the sorrows of the people more intimately than any other class, and by our daily work in the homes of the poor, we are trained to observe their social and sanitary needs. It is always a calamity to a state when any learned and respectable class of its

citizens abstains from the exercise of political functions. It is a greater calamity when they do so in the face of law-making on which they are capable of wise counsel. As a class, we stand almost alone in extent and thoroughness of scientific training. We are the only body wise in all the mysteries of the new knowledge. As the power of other learned callings wanes; as the proud predominance of wealth is lessened, it is scientific intelligence that must gain in power. But power will not come to those who stand aside and look on, either cynically or timidly, at the strife of parties. We must hold ourselves like men, willing to take our share in the struggle. We must remodel our institutions, we must organize and consolidate our profession, and infuse into our ranks the self-respect and dignity that come from discipline."

INSTRUMENT CASES.—In a long and interesting article by Dr. Landolt, in *Archives d' Ophthalmologie*, for July and August, in which he details carefully the instruments required in surgical operations on the eye, he makes reference to the box or case in which instruments are kept, which, in its language, is equally applicable to all surgical instrument cases. He says: "Formerly (and frequently to-day) instrument cases were generally of wood, covered with leather, and lined with velvet. We cannot deny that a box of that character, handsomely finished, in Turkish morocco, ornamented with metallic corners and plates, lined with some rich material of bright color, with rows of glistening instruments arranged in close order, is a very pleasing sight (to the surgeon). But this bright picture has its shadows; the handsome velvet retains dirt too readily, and the luxurious interior of the box is absolutely opposed to a radical cleaning, and to an antisepsis in harmony with the doctrines of modern surgery. The simple box of wood has now come into vogue, and we have seen them of such handsome wood and superior workmanship as to rival their elders. They are made of walnut, mahogany, ebony, and rosewood. Walnut is the most solid, ebony the handsomest and dearest. Mahogany is very solid and gains in beauty with time. Foreign woods are sold by weight. Merchants frequently soak their woods in water to increase the weight and price to the detriment of their value. A wooden box should be sufficiently well made to be plunged with impunity into an antiseptic solution, and to sustain thorough cleanings with brush and sponge."

THE TRIBULATIONS OF A COUNTRY OBSTETRICIAN.—Under this title a Dr. Pierre gives, in the *Gazette Med. de Picardie*, a very amusing account of his experiences. In one of his cases, where he assists at the birth of a child born out of wedlock, the mother of the mother is highly indignant, not at the condition of her daughter—that is a small matter—but that the mother of the father is not present at the birth, an indignity which she could not brook, but which was finally condoned by the arrival of the offending party. One case can well be given in his own style: "I was on duty at the Hospital Saint Antoine. One night, about one o'clock, I was awakened to receive a patient. She brought with her in her arms an infant that was nearly naked. I received her as an urgent case. The next day she gave me her history, but I will let her speak for herself: 'I am a very gay person, sir. I love the ball. I have not absented myself during my pregnancy, which yesterday passed the seventh month. At ten o'clock last evening I was one of the first at the dance, near the Place du Trone. I did my best. After several country dances I felt pains. So much the worse, said I, if it is coming this evening, as I have not reached my full time. I will leave the hall as late as possible. But the pains continued. The more I suffered the more I danced. In the *cavalier seul*, which at our balls leaves the ladies to dance alone, seized with sharp pains, I made some astonishing contortions while dancing. I had a remarkable success. Then the *gallop* followed, in which I seized my partner with a vigor I did not know I was capable of, when suddenly the waters broke. The accident was observed, but was attributed to a different cause. The jokes rained on me. I tried to escape; they pursued me. I ran out; they followed me. I passed down the Boulevard Mazas; some thirty of them were at my heels. Where the Mede Charenton branches off I climbed over the board fence of a wood-yard. Fortunately, my pursuers had lost track of me. I sat on the ground; it was time; the child came five minutes afterwards. I have wrapped it up in my handkerchief; and small as it is, I think it will live.' She was right; both mother and child did well, and she left the hospital ten days later without any disagreeable complication."

EXTRA UTERINE PREGNANCY OF SEVEN YEARS STANDING—DISCHARGE OF THE FŒTAL SKELETON BY THE RECTUM.—(M. H. De Brundu Boiston, *La Progres Medical*, June 30, 1883.) The patient, aged thirty-seven years, was taken suddenly in the second month of an apparently normal pregnancy, with an extremely acute pain in the lower portion of the abdomen, followed by syncope, vomiting and coldness of the extremities. This was the outset of an attack of peritonitis which was very severe, lasting two months. Pregnancy continued regularly with no other trouble than swelling of the legs, up to the middle of the ninth month. Fifteen days in advance of the expected time, labor commenced. Expulsive pains became frequent, and the neck of the uterus became patulous. At the end of three days these phenomena ceased suddenly; all painful contractions stopped; the abdomen seemed to be smaller; the neck of the uterus became firm and closed, and the next day the patient got up and attended to her usual occupations. For several days her breasts troubled her by their tension, accompanied by a somewhat abundant secretion of milk. Six weeks later menstruation was re-established, and her menses have continued for the past seven years with promptness and regularity. During that period the general health has been excellent; no pain in the abdomen; no irregularity in the intestinal organs; nothing to indicate any uterine or periuterine disorder. Eight months previous to the date of making the report,

the patient was taken with sharp abdominal pains, fever, general malaise, anorexia and vomiting. Diagnosis peritonitis, and the patient lay in bed five weeks, during which time some hair was passed in the stools, mixed with fæcal matter. Five months later, *i. e.*, three months before the date of report, the patient discharged by the rectum little bones in great number, belonging to a fœtus at term. Each stool contained one or two. These bones were entirely deprived of any soft parts. A great part of the skeleton has been discharged in this way—ribs, vertebræ, tibia, radius, humerus, femur, scapula, temporal, spheniod, superior maxillary, and numerous phalanges. All these bones are in an advanced state of ossification, more so than is seen at birth. In the scapula, the ribs and the other long bones mentioned, the diaphyses are ossified throughout. At present there is very good general health; good appetite and no intestinal trouble; bowels regular; no blood in the stools, but from time to time these bones are expelled in the midst of the fæcal matters. On feeling the lower part of the abdomen, on the right side, a tumor is found, of the size of a fœtal head at term, not painful on pressure. It has slightly diminished with time. Rectal examination throws no light on the subject.

A New Method of Reduction in Dislocations at the Elbow-Joint. J. E. Kelly, F.R.C.S.S., etc. *Dublin Jour. Med. Science*, July.—The operator sits on the corner of a table, at the end of which the patient is placed upon a chair. The injured limb is drawn under the surgeon's proximal thigh, which rests, close to the joint, on the anterior surface of the humerus, while the olecranon is accurately placed on the anterior surface of the lower third of the distal femur, and the proximal foot is "hitched" behind the other leg, which is flexed firmly against the frame of the table. In order to obtain the most favorable fulcrum, the surgeon fixes his proximal elbow against the antero-internal aspect of his corresponding thigh, and, grasping the wrist of the patient with both his hands, reduction is effected by the simultaneous and co-operative action of the muscles of the arm, back and thigh. Fixation and counter-extension are supplied by the powerful thighs of the operator, and coaptation is effected, with great nicety, by the backward pressure of the proximal femur against the anterior surface of the humerus, while the distal femur forces the olecranon forward.

Anæmia and Somnambulism.—The *France Médicale* has found the following interesting notice in a journal of April 11th, 1883: "A physician desires to find an anæmic girl to form a lucid somnambulist. Pay, 100 francs a month. Three seances a week, from 4 to 6. Address letters to M. Dereca, Poste Restante, Bureau de la Bourse, Paris."—*Moniteur de la Policlinique.*

Treatment of Ulcer of the Stomach.—Dr. F. P. Atkinson, *Practitioner*, July.—Complete rest in in bed. Teaspoonful of Brand's essence of beef, or Valentine's meat juice in a little cold water, in small quantities every four hours; a wineglassful of milk and lime water (mixed in equal proportion,) to be taken frequently, and the body to be rubbed with olive oil morning and evening. The beef essence and milk were very gradually increased, and, when the pain had almost subsided, a little sponge cake, bread, barley water, arrow-root, etc., were allowed, and, at last, by very slow degrees, ordinary food replaced the liquid diet. No stimulants. No aperients. ℞. Medical treatment: 8 grains of tartrate of iron, 15 minims of tincture of conium, 15 minims of tincture of columba, 15 minims of glycerine. In one ounce of water, three times daily.

Effect of Alum Gargles upon the Teeth.—M. Young prescribed a gargle containing a small proportion of alum for a woman suffering from chronic pharyngitis with catarrh of the middle ear. The patient, finding relief, continued its use for some three weeks. But perceiving that, at meals, her teeth began to crumble into little pieces, she consulted her dentist, who considered it due to the alum gargle, as when the enamel is removed from the teeth, the alum breaks down the dentine. To prevent this it is best, immediately after using an alum gargle, to wash the mouth out with a solution of bicarbonate of soda or an alkaline water.—*Courier Medical.*

What Our Neighbors Think of Us.—The *Lancet*, London, June 30, 1883, contains the following: "The annual meeting of the American Medical Association was held in Cleveland, Ohio, on June 5th to 8th. The President, Dr. John L. Altee, delivered the opening address, in which he gave some reminiscences of his early medical life, mentioning some of his old teachers and schoolmates, and referring also to the code of ethics, showing what the state of the profession was prior to the adoption of the code, and what good results the code has accomplished. The feeling in reference to the question of altering the code in the direction desired by some New York practitioners, was very marked indeed, and it was quite evident that the general body of the profession in America has no sympathy whatever with those who would degrade it by the adoption of the 'new code.'"

The same number has a long and interesting editorial on Dr. Austin Flint's "Medical Ethics and Etiquette." To do it justice the editorial would have to be quoted in full.

At a meeting of the Board of Trustees of the newly organized Women's Medical College, of Kingston, Canada, the following were appointed professors: Obstetrics, Dr. M. Lavell; Surgery, Dr. M. Sullivan; Anatomy, Dr. C. Irwin; Materia Medica, Dr. A. S. Oliver, Practice of Medicine, Dr. H. Saunders; Medical Jurisprudence and Sanitary Science, Dr. T. M. Fenwick: Institutes of Medicine and Histology, Dr. W. H. Henderson. The college will be opened this fall.

Dr. Edgar A. Dean, of Brockton, has been made a member of the Massachusetts State Board of Health, Lunacy and Charity.

THE

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PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, AUGUST 25, 1883.

COLLECTIVE INVESTIGATION OF DISEASES.—It is known to most of our readers that, during the past year, an organization has been effected by prominent members of the British Medical Association for the purpose of establishing a systematic method of collecting facts regarding the prevalence, causes, and results of all the more important diseases. The organization is headed by a central committee called the "Collective Investigation Committee of the British Medical Association," of which Dr. G. M. Humphrey is Chairman, and Dr. F. A. Mahomet is Secretary. The plan embraces the establishment of local committees in all parts of the kingdom. Under the direction of the general committee a circular or "Memorandum," intended to aid in directing the attention of the practitioners, is prepared concerning each disease and numbered, and with it a card containing a full series of questions in the most convenient form for answering. A copy of these memoranda and cards is sent through the local committees to all those practitioners who are to be enlisted in the work of investigation. The cards as soon as filled are to be returned to the secretary of the local or sub-committee, who returns them, properly arranged, to the secretary of the general committee. For a time the returns were published in the columns of the *British Medical Journal*, but soon became so numerous as to occupy too much space, and, in May last, it was proposed by the general committee to publish only abstracts of the more important returns in the *Journal*, and publish the full reports in separate volumes or "Records" at such intervals as might be necessary. At the recent meeting of the American Medical Association in Cleveland, Dr. J. S. Billings presented a communication from the Secretary of the Collective Investigation Committee of the British Medical Association, inviting the co-operation of the American Association in establishing a similar system of collective investigation work in this country, thereby making the work international so far as to embrace all English speaking peoples. As the American Medical Association, through a standing committee appointed five or six years since, had been prosecuting a system of co-operative investigations concerning the relations of meteorological conditions to the prevalence of acute diseases, the communication presented by Dr. Billings was referred to that committee for consideration. As chairman of the committee to which the subject was referred, I desire at present to simply explain to the members of the American Association the nature and extent of the work in which they are invited to engage. This will be accomplished most perfectly, perhaps, by quoting the following as a specimen circular or memorandum, with the series of questions to be printed on a card convenient for answer and return:

COLLECTIVE INVESTIGATTON COMMITTEE.

MEMORANDUM (No. 1) ON ACUTE PNEUMONIA, ESPECIALLY WITH REGARD TO ITS ETIOLOGY AND EPIDEMIC PREVALENCE. BY OCTAVIUS STURGES, M.D., AND SIDNEY COUPLAND, M.D.

The object of this inquiry is to collect evidence from those who are best able to afford it, bearing on the natural history of acute pneumonia as observed in this country; and especially its etiology. Upon this latter question opinion is much divided, and while in other countries valuable material has been collected respecting it, little has been done in our own. It is now desired that an impartial investigation should be made upon the disease, in the hope that information of great value may be elicited. Such an investigation might reasonably be expected to be of service in the promotion of particular measures of prophylaxis, and probably also in the establishment of a rational therapeutics is this disease.

At the present day, two views are commonly held, concerning the etiology of an attack of primary acute lobar pneumonia in a previously healthy individual. They may be concisely summed up under the terms: 1. Exposure; 2. Infection. The first view is that generally accepted; the question is, What grounds exist in favor of the second? That this latter form of pneumonia does exist, possibly to a far greater extent than is admitted, seems likely, not only from the records that appear from time to time upon "epidemic" and upon "contagious" pneumonia, but also from the well-attested facts of the ordinary course of the disease. All clinical observers are agreed that the fever characterizing many of the best marked cases of acute pneumonia does not run parallel with the physical signs of the pulmonary inflam-

mation; that it does not, in other words, coincide with the latter in degree or in duration. For instance, high fever usually accompanies a small tract of inflammation, when this is seated at the apex of the lung instead of at the base; and again, it not uncommonly happens in an ordinary case of basic pneumonia that the fever subsides rapidly (by crisis) some days before the local signs indicate a corresponding improvement in the damaged organ. These are but two examples out of several which might be quoted, as affording *prima facie* support to the view that in the disease we call "pneumonia" there is something over and above the mere condition of an inflamed lung; some influence, call it septic, or what not, which, attacking the whole organism, has its local and manifest expression in pulmonary inflammation. Have we, in a word, in the inflamed lung, a condition related to some underlying influence (at present unknown) in a manner analogous to the bowel affection characterizing typhoid fever; or, to the cutaneous inflammation of facial erysipelas; or, on the other hand, is pneumonia simply a local disease, solely due to "exposure," like catarrhal affections?

We have here, however, not to deal with speculations, but only to ask for facts. The facts supplied may go far to show that an "epidemic" of pneumonia means nothing more than a great prevalence of the disease due to atmospheric conditions, to which the term "epidemic" is no more applicable than it is to bronchitis, when that happens to be prevalent. The Collective Investigation Committee invite the profession to aid them in determining a question, the solution of which will materially further the progress of scientific and practical medicine.

The main points to which attention is directed are given in the accompanying schedule. They do not involve detailed statements, and most of them can be answered by a mere affirmative or negative, or by the erasure of certain words. A few brief explanations will suffice to show the purport of the questions.

The answers to the questions concerning *occupation* and *habits* will point to the existence or not of any factors peculiar to the individual, which may operate in rendering him susceptible to the disease. From them it will be learned whether his life, passed in the counting-house, factory, or workshop, or in the farm or mine, be sedentary or active; whether the occupation, in short, be one likely to expose him to unsanitary or miasmatic influences, to changes of temperature, to great physical fatigue or mental effort, or to other conditions whereby his general health may have suffered, or his liability to "take cold" be enhanced; while, as to habits, it may be expected that some light may be thrown upon the extent to which impoverished diet, and especially *alcoholic intemperance*, conduces to the determination of pneumonia.

Then follow a series of questions specially intended to elicit facts bearing upon the existence of epidemics of pneumonia, and the conditions under which they arise. The *locality* and *situation* of the patient's dwelling, whether this be in an elevated position, isolated and exposed, or sheltered in a valley, or buried among trees, or in the heart of a thickly-peopled town, together with the nature of the soil on which it stands.

It should be explained that, under the next heading, *atmospheric conditions* prevailing at the time of the attack or epidemic, it is only intended to ask for such general statements as "dry," "damp," "wet," "cold," "hot," "changeable," and the prevailing wind—such as come naturally under the head of "weather"—without any detailed "meteorological" data being required; as these could be supplied, when necessary, by reference to the records of the Meteorological Office.

The next query requires a single word in answer from the practitioner. Are there *other cases of pneumonia* in the patient's house or in the surrounding district? If there be other cases, and an outbreak of pneumonia be generally prevalent, the observer's returns upon *each* of the cases that come under his notice will afford the chief evidence of the presence of "epidemic pneumonia," so far as his practice goes. To make the information complete, it is to be hoped that, whenever pneumonia is unduly prevalent in a district, every practitioner concerned will take part in this inquiry. In this way the Committee would be placed in possession of a mass of facts of the greatest value accumulated by independent observers.

It is also of great importance to learn whether, at the time of the prevalence of pneumonia, there be concurrently an undue prevalence of the *specific fevers, e.g.*, typhoid, scarlatina, diphtheria, erysipelas, etc., as it may happen that conditions liable to produce such diseases in some individuals may favor pneumonia in others. It must be understood that examples of pneumonia occurring as a complication in the course of a specific fever are not required. Where, however, as sometimes happens, pneumonia occurs in the *initial* stage of a specific fever—notably typhoid—such a case should be recorded in this inquiry. In like manner, information is asked for as to any concurrent undue prevalence of those ill-defined mild febrile conditions, to which the terms *febricula* and *catarrhal fever* are applied, with the view to ascertain whether they also rise under conditions existing at the time when pneumonia prevails.

The next question applies to a different branch of the subject. In asking for a return of the concurrent prevalence of *bronchial catarrh*, it is intended to ascertain how far an "epidemic" of pneumonia may be explained by the existence at the time of meteorological rather than "septic" conditions. If, for instance, the returns show that pneumonia and bronchial catarrh are both unduly prevalent in a particular district, where there is no reason for suspecting any unsanitary influences, but at a time when cold and damp weather is in the ascendant, then surely it may be fairly concluded that the pulmonary and bronchial disease have in this instance the same non-specific etiology; whereas, on the other hand, if pneumonia largely prevail, and catarrhal affections be at a minimum, there will be ground for suspecting that meteorological variations were not alone, if at all, to be assigned as the cause of the pneumonia.

Next on the list comes the important subject of

sanitary conditions, which, if carefully inquired into, may throw much light upon many an "epidemic" of pneumonia. It may be discovered, for instance, that, when several members of a household have been in succession struck down by the disease (not at the time generally prevalent in the district), the house itself is in an insanitary state, and that its inmates have been poisoned by sewer-gas or other noxious effluvia. Or, again, the practitioner, meeting with an unusually large number of cases in his district, may find that the drainage is generally defective. If a reasonable doubt exist on these matters, the word "uncertain" will sufficiently express it.

The remaining queries refer solely to the *family* and *personal history* of the patient and the leading features of his attack. From the answers furnished, it will be possible to learn whether there be any uniformity in the extent and seat of the pulmonary inflammation, in the course of the concomitant fever, in the rate of mortality, etc.

Lastly, space is left for any additional remarks from the observer which appear to him desirable; but there is no need for him to go beyond the few points named, as answers to them will furnish all the information required; and he will find that these replies can be made without the expenditure of much time. Facts alone are asked for, and those neither numerous nor abstruse; but they should be plainly and simply stated, unbiased by views or opinions; and so presented, they will be collated and analyzed, with a view to the solution of one of the many vexed questions in medicince.

Form of Card about to be Issued.

Initials of patient. M. or F. Age.
Married. Single. Widowed.
Occupation.
Temperate. Intemperate. Total Abstainer.
Food—sufficient, insufficient.
Place of residence.
Locality—high, low, damp, dry, exposed, confined.
Prevailing wind at onset of attack.
Atmospheric condition—dry, damp, wet, cold, hot, changeable.

(State whether "many" or "few" of each disease.)	In Same House.	In District.
Cases of pneumonia.....		
" any kind of fever*.....		
" catarrhal fever..		
" tonsillitis.....		
" herpes.....		
" bronchial catarrh		
" erysipelas.....		
" other infectious diseases.....		

* Nature of the prevalent fever.

Sanitary condition of house—good, bad, indifferent.
Sanitary condition of district—good, bad, indifferent.
Family history of lung disease.
Previous illness of patient, with dates.
Attack preceded by rigors. Date.
Premonitory symptoms.
Date of onset.
Part of lungs affected. R. base, apex. L. base, apex.
Expectoration—blood, rusty, white, none.
Fever—severe, moderate, mild.
Highest range of temperatuae.
Duration of fever.
Termination of fever—sudden, by gradual subsidence.
Duration of physical signs.
Result.
Sequelæ.
Remarks on any special feature of the case.
Plan of treatment.

It is evident that the value of the facts gathered in the answers to such brief card questions as the above, would be in proportion to their number and the accuracy with which they were observed and recorded. In a country embracing so great an extent of territory as ours, it will be very difficult for a general committee of the National Association to select such local or sub-committees in all parts of the country as will be judicious and efficient in distributing the cards and memoranda to such practitioners in their respective districts as will be best qualified to use them, and prompt in properly arranging the returns and transmitting them to the secretary of the general committee. If each State Medical Society could be engaged in the work of establishing the proper sub-committees in the several districts or counties of its own State, and through a State committee receive the returns from the sub-committees, and after their examination and arrangement transmit them to the general committee of the national organization, it would be more likely to secure results of value, both in regard to quantity and quality, than by any other method. The institution of such co-operative work, bringing into direct practical relations the national, State, and district medical societies, would have a strong tendency to harmonize the interests and increase the membership of all those organizations; and whatever can be done which will induce practitioners generally, to observe more carefully and keep a written record of the cases coming under their care, will be of great benefit to them, by increasing the accuracy of their knowledge and the extent of their mental discipline. To establish such a system of collective investigation throughout our country as is proposed, will require time and much judicious work on the part of the general committee having it in charge. But the subject is of sufficient importance to merit the attention of our readers, and elicit suggestions in regard to the best methods of procedure from those who are willing to give it their attention.

THE ST. LOUIS MEDICAL SOCIETY.—This Society, by direct action, has denied having either requested or authorized the presentation of the preamble and resolutions asking for a revision of the Code of Ethics, which were offered by a member at the meeting of the American Medical Association in June last, and promptly laid on the table.

CHOLERA AND YELLOW FEVER.—No new developments of importance have taken place in regard to either of these diseases during the past week. The Board of Health of San Francisco, fearing the introduction of cholera from China, has declared all Asiatic ports infected, and ordered all vessels arriving from such ports to undergo full quarantine. Many, failing to trace any positive evidences of the *importation* of cholera into Egypt, are beginning to discuss actively the question whether the present plague in that country is not a disease essentially different from the Asiatic cholera, and dependent on local causes. It is to be hoped that the many special

commissions appointed or encouraged by the European governments, for investigating the nature of the present cholera epidemic in Egypt, will be sufficiently free from the influence of preconceived theories, to give reports embodying only plain and fully verified facts.

FOREIGN CORRESPONDENCE.

PARIS LETTER.

PARIS, August 8th, 1883.

Of all the theories propounded at the Paris Academy of Medicine, I know of none more absurd than that enunciated by M. Decroix, a retired army veterinary surgeon, on the depopulation of France, and the degradation of the French nation. In his paper, which he read at a meeting of the Academy, the author endeavored to make out that these conditions were brought about by the abuse of tobacco, which, in France, contained at least 9 or 10 per cent. of nicotine, and which, by its pernicious influence on the system, caused a diminution in the number of births and an increased rate of infantile mortality. Whether this theory was considered worth listening to or not, the members present paid no attention to the reading of the paper, which was performed in the midst of noise and marked indifference in the Assembly.

To produce anæsthesia for surgical purposes, the smallest amount of chloroform as pure as it can be obtained, is to be poured on the linen on the part covering the space between the nose and the mouth. This the patient inhales, and at the end of the expiration that follows, a second drop is poured on the linen, which the patient inhales, so that at each inspiration the patient takes in one drop of chloroform vapour mixed with the inspired air. The patient is recommended to breathe naturally, and, if after a few minutes anæsthesia is not produced, two drops instead of one are to be poured. This has been the subject of a communication by Dr. Seyraud, of Bordeaux. In this paper the author objects to the "siderative" method employed by surgeons in the administration of this substance, and he proposes in its stead the following method, to which he has given the name of "Méthode Dosimétrique." It consists of a piece of batiste folded twice and extended over the face of the patient in such a way that only the nose and mouth are covered by it. One single drop of chloroform on the linen for each inspiration. In this way complete anæsthesia is obtained in seven or ten minutes, which is arrived at gradually without the intervention of the stage of excitement or of hyperæsthesia, even in alcoholic subjects and the most nervous women. As soon as anæsthesia is obtained, the chloroform must be suspended for one or two minutes and then administered in doses of two drops per minute, on an average, if it is desired to prolong the chloroformic sleep independent of operation. If the patient has a tendency to wake up, the dose should be increased, and the author has by this means been enabled to keep up anæsthesia for an hour and a half. The advantages claimed for this method, are the procuring of anæsthesia more rapidly and more economically than with the method in vogue, and the avoidance of the risks inherent to chloroform.

Cholera of the genuine Asiatic type, which broke out in Egypt about the 22d of June, has naturally excited considerable alarm among the inhabitants of Europe. In France, while every precaution is taken to prevent actual invasion, the sages are expatiating on the etiology and nature of the disease. Nothing particularly new has been advanced. While it is believed by some, and they are in the majority, that every outbreak of Asiatic cholera can be traced to India, others affirm that it may originate *de novo*. M. Jules Guérin is the invincible representative of the latter theory, and at a recent discussion of the subject at the Academy of Medicine, he reiterated the opinion he expressed more than forty years ago at the same Academy, that the disease was not contagious except under certain conditions of aptitude and receptivity; that each epidemic was purely local, and that the evolution of the disease, like that of other epidemics, was the product of certain "medical constitutions" resulting from successive modifications of the atmosphere and of the organism. This view was vehemently opposed by M. Fauvel and others, who expressed themselves in rather strong terms against the English, whom they condemned as being too mercantile and selfish to allow their own interests to suffer in any way. They referred to the non-observance by the English of quarantine, though they themselves are beginning to find out that practically such a stringent measure was of itself of little use in effectually checking the spread of the disease. But I am afraid that our learned confrères were actuated more by political than by purely scientific considerations, as their language, and indeed that of the French press in general, has been stamped with great acrimony against the English; so much so that the latter have considered it necessary, by semi-official communications, to remonstrate with our French neighbors, and, it is to be hoped, with some effect, for, after all, there can be no objection to the discussion of international interests, but it must be carried on with loyalty and courteous impartiality.

It was to be expected that M. Pasteur, the great "microbist," as he is called, must have his say in the matter. He has organized a scientific mission which is to proceed to Egypt, to study the nature of the malady, and he foresees the possible existence of a microbe in the blood or in some of the viscera, which, if discovered, would marvellously simplify not only all prophylactic measures, but would open a new field for the more rational therapeutics of the disease. The mission is composed of men selected by M. Pasteur, and the necessary funds and sanction have been granted by the Parliament for the purpose. The following are the names of the members: M. M. Roux and Thuillier, attached to the laboratory of M. Pasteur; Strauss Agrégé, of the Faculty of Medicine of Paris, and Nocard, professor of veterinary medicine, all well known for their biological researches. M. Pasteur has given them written instructions, not only as regards the prosecution of their investigations, but for their own protection against possible infection.

DOMESTIC CORRESPONDENCE.

PHILADELPHIA LETTER.

The subject of a possible outbreak of cholera in the United States still excites more or less speculation in the medical and sanitary circles of this city, and although the general opinion seems to be that we have little to fear before next summer, due precautions should be taken to prevent it from obtaining a foothold in our midst, or that, in case the disease does effect a landing every means are used to keep it from spreading and becoming epidemic. It is possible, nay, probable, however, if cholera again appears abroad next summer, that it will reach the United States in spite of all quarantine against it, for, judging from past experiences, proper precautions will not be taken until it is too late and the harm done. One ship's cargo from an infected port is as dangerous to us as the hosts of an invading army, and, as it is pretty sure that the enemy will obtain a landing, the means for repelling its attacks are exceedingly important. It is a well established fact that cholera depends for sustenance on filth; and, on the other hand, cholera rarely invades districts free from filth-contaminated soil, air or water supply. It follows, therefore, that the best weapon we can use against cholera is cleanliness. It is hardly necessary to say that there is plenty of food for cholera in our large cities at present. Judging from the present sanitary condition of Philadelphia, it will have a feast when it reaches this port. Dead dogs and decaying vegetable matter, and putrid garbage of all kinds abound in back alleys even in the center of the most densely populated part of the city. The Board of Health are powerless in the matter; all they can do is to report it to the Highway Department; and the Highway Department has let out the cleaning of streets to contractors who remove the filth when it suits their convenience. We greatly need a general Board of Public Works in this city, with representatives from each department, who shall have a general oversight of the city government. As it now is, each department is independent of the other, and there is not that harmony of action that there should be. But there is small probability that any reform will be effected; the city will be, in all probability, as dirty next year as this. The cholera may come, and if it does, there will be a feeble effort by an inefficient city government to repel the foe, and then it will break loose to do its work of destruction.

A party of prominent Philadelphia physicians recently visited Cresson Springs, to be the guests while there of the Juniata Valley Medical Association. The party consisted of Drs. Wm. B. Atkinson, Wm. M. Welch, Philip Leidy, John V. Shoemaker, W. S. Stewart, C. R. Prall, W. St. Clair Ash, W. R. D. Blackwood, O. P. Rex, Joseph D. Nash, F. B. Hazel, F. E. Stewart, H. M. Richards, H. T. Taylor, L. K. Baldwin, Carl Leiter, Chas. B. Nancrede, Rosh Leaman, Geo. F. Shattuck, J. D. Schoales, Alfred Jones, Wm. Gardiner, Horace Ladd, L. S. Clark, Chas. M. Seltzer, Benj. F. Baer, James Graham, Napoleon Hickman, F. M. Perkins; and from Camden, N. J., Wm. Izard, A. M. Mecray, E. L. B. Godfrey.

The medical meeting which they went to attend was an interesting one, and the frolic afterward still more so. By request of the officers of the Keystone Hotel Company, an inspection was made of the Mountain House and Surroundings, and of the mineral springs for which Cresson is noted.

The waters of Cresson Springs are worthy of note, both as regards variety and medicinal qualities. A spring of cold, sparkling water, protected by a handsome pavilion in front of the hotel, refracts the light deceptively through its crystal depths, giving the impression to the beholding eye that the stones at the bottom are in easy reach. The water of this spring is *absolutely pure*, yielding to analysis neither organic matter or mineral salt, and the cool liquid is not only a refreshing summer drink, but has been highly recommended in the treatment of the rheumatic diathesis, certain diseases of the kidneys, etc. Another spring is ferruginous, another aperient, containing a large proportion of magnesia, and a third is strongly impregnated with alum, and appears useful in various vaginal and uterine disorders.

In addition to the advantage presented by its waters, the climate of Cresson is cool in the summer, and the surrounding mountain scenery some of the most beautiful of central Pennsylvania.

A CASE OF PUERPERAL ECLAMPSIA.

I was called to see Mrs. A. R., aged 17 years, primipara, on the morning of Aug. 5, 1883. I found her deeply comatose, and just having a frightful convulsion. On inquiry I learned from her husband that she had complained of severe headache all night, and that she frequently micturated. Towards morning she vomited. She had anasarca, especially in the face and extremities. She expected to be confined towards the last of the month. On examination I found no dilatation of the os. I gave a hypodermic injection of 6 grs. of hydrate of chloral, which rendered her conscious. I then left, and at noon found her having convulsions again. I gave another injection of chloral hydrate, and as soon as she could swallow, I gave her 20 gtts. of tinct. verat. viride. This caused severe nausea and vomiting for a while, and then she became quiet. Before midnight I gave her two injections of chloral hydrate and one of 20 gtts. of tinct. verat. vir. After midnight I decided to fall on chloral hydrate alone. Dr. Fritz, my consultant, thought I would, probably, get the best effects from that drug. I then gave her three injections of about 8 grs. from 1 to 5 A. M., Aug. 6. In these four hours she had three spasms. At 5 A. M. I left, and returned at 8 A. M., when I found her just having another spasm, the first since I left. I gave her another hypodermic injection. At 9:30 A. M. I gave her a rectal injection of 40 grs., and ordered one every four hours. In the evening she was half conscious.

The next morning, Aug. 7, she was altogether conscious. She passed no urine from 4 A. M. Aug 5, to 5:30 P. M., Aug. 6. She had bitten her tongue fearfully before I saw her the first time. She was deeply and continuously comatose from 4 P. M. Aug. 5 to

about 4 P. M. Aug. 6. About 4 A. M., Aug. 8, labor pains came on. At 9 A. M., when I reached the house, I found the os dilated to admit one finger. At 3:30 P. M. I ruptured the membranes, and at 4:45 I delivered her of a healthy boy. She had no convulsions during nor after labor. The only medicine she took before, and for some time after labor, was "imperial" drink. I then prescribed tinct. ferri. chloride. No abscesses resulted from the injections. The convulsions were evidently of uræmic origin, as they ceased altogether after the kidneys began to act. Chloral hydrate, administered by enema and in sufficient doses, will, I believe, control the spasms more efficiently, as well as more lastingly, than any other agent.

W. F. HERTZOG, M.D.

NEW JERUSALEM, PA., Aug. 20, 1883.

CORRECTION.

WALNUT HILLS, CINCINNATI, Aug. 23, 1883.

DR. N. S. DAVIS—*Dear Sir:* My article in No. 5 contains an error of statement. The sentence referred to is on page 138, second column, and should read as follows: If aortic aneurism be eliminated, absence of abnormal precipitation of the carotid pulse is conclusive, in any case, of absence of an open state of the aortic valves. Yours truly,

A. T. KEYT.

SOCIETY PROCEEDINGS.

REPORT OF THE SECTION ON STATE MEDICINE.

CLEVELAND, O., Tuesday, June 5, 1883.

The Section of State Medicine convened in the United States Court room at 2:30 P.M., with Dr. Foster Pratt, President, in the chair.

After some preliminary remarks by the President, the Section fixed upon the hour of 2:30 P.M. Wednesday to hear the report of the working of the Illinois State Board of Health, and especially as to its actions in regard to regulating the practice of medicine.

Dr. A. L. Gihon, of the Navy, read a paper entitled "Medical Education the Fundamental fact in Medical Ethics," with accompanying resolutions. The discussion was opened by Dr. Rauch, Secretary of the State Board of Health of Illinois, and was followed by Dr. Billings, of the Army; Hibberd, of Indiana; Hakes, of Pennsylvania; Sheehan, of New York; Tuckerman, of Ohio; and Bush, of Delaware.

On motion of Dr. Gihon, action upon the resolutions was deferred until Thursday at 2:30 P.M.

Section adjourned.

CLEVELAND, O., June 6, 1883.

The Section met in the chapel of the Young Men's Christian Association, and was presided over by Dr. Pratt.

Dr. H. A. Johnson, of Illinois, read his report, entitled "The Working of the Illinois State Board of Health."

By consent, members were allowed to ask questions of Dr. Rauch, Secretary of the State Board of Health of Illinois. This somewhat novel, though very interesting part of the proceedings, was made to cover a detailed account of the practical functions of the Board.

Dr. Pratt, of Michigan, offered the following:

Resolved, That the labors of Dr. William Farr, of England (recently deceased), in the origination, classification, and compilation of vital statistics, labors begun in 1838, and perseveringly, wisely, and ably continued by him for nearly half a century, are recognized by the medical profession of the United States as an enduring monument to his ability and learning as a physician, as the real incentive to and the foundation of our own sanitary work, and as a perpetual blessing to present and to future generations of our universal humanity, entitling his name and fame to stand with that of other great men whose genius and labors have resulted in beneficent revolutions of the medical, surgical and sanitary thought and activities of the civilized world.

Passed, and referred to the Association for adoption.

Section adjourned.

THURSDAY, June 7, 1883.

The Section met in the Y. M. C. A. chapel at 2:40 P.M., and was called to order by the Secretary, who on motion of Dr. Gihon, took the chair in the absence of the chairman.

After the minutes had been read and approved, Dr. Gihon called up the resolution offered in connection with his paper, read before the Section on Tuesday, and made the special order of the day. In opening the discussion, Dr. Gihon took occasion to reaffirm his allegiance to the organic law of the American Medical Association and to disclaim the partisan character, which had been attributed to his paper by those who had not understood its purport. His endeavor, throughout, had been to show that the narrow spirit in which medical ethics had been interpreted if carried to its legitimate conclusions would necessarily ostracise such eminent reformers as Professors Bowditch, Cabell, Stephen Smith, and Johnson, while it would place under ban every liberal minded member of the profession."

Moved by Dr. Hake, of Pennsylvania, that the resolutions be taken up *ad seriatem*. The first, after a verbal amendment by Dr. Didama, was discussed by Dr. Rochester, of N. Y., Dr. Hake, of Pa., Dr. Hopkins, of N. Y., Dr. Baldwin, of Ala., and others, was put upon its passage and lost.

The second resolution was also amended, but in such manner as not to compromise its spirit, and as Dr. Gihon said of this resolution that it embodied all that he considered of importance in the theme of his paper; the discussion enlisted much interest. It was entered upon by Dr. Baldwin, of Ala.; Didama, of N. Y.; Pratt, of Mich.; Hay, of Ill.; Vaughan, of Mich.; Billings, of U. S. A.; Bell, of N. Y.; Hibberd, of Ind.; Hopkins, of N. Y.; Crago, of N. Y.; Johnson, of Ill., etc.

The importance of State boards of examiners was urged by the advocates of the resolution, and agreed to without exception by those who, at the same time, did not believe that the adoption of the resolution would influence legislators in the formation of

such boards. The resolution was lost, and on motion, all the resolutions were laid upon the table.

Dr. A. N. Bell, of New York, introduced the following resolutions:

Being impressed with the truthfulness and importance of the memorial of Parlimentary Bills Committee of the British Medical Association under date of March 17, 1883, the American Medical Association urge upon the Congress of the United States the subject of competent medical and sanitary service, and proper provision for its maintenance on board all trans-oceanic passenger vessels, and that a committee of five be appointed to promote this object, and report upon the condition of the subject at the next session.

The resolution was passed and referred to the Association for adoption.

On motion, the Section on State Medicine adjourned *sine die*.

THOMAS L. NEAL, M.D.,
Sec'y Section State Medicine.

FOSTER PRATT, M.D.,
Chairman Section State Medicine.

REVIEWS.

BOOKS AND PAMPHLETS RECEIVED.

Pathology and Morbid Anatomy of Tubercle. By N. Senn, M.D.

A Case of Abdominal Cystic Tumor, when, Seven Years after Removal by Laparotomy, a Second Operation was demanded. By W. F. Atlee, M.D. (Reprint.)

A Case of Fungosities of the Bladder. By W. F. Atlee, M.D. (Reprint.)

The Essentials of Pathology. By D. Tod Gilliam, M.D. P. Blakiston, Son & Co., Philadelphia.

Report of the Health Officer of the District of Columbia, 1882.

Bulletin de L'Acadèmie de Mèdicine, Paris.

Bulletin de la Soc. Chimique, Paris.

Archives Mèdicales Belges.

Canada Medical Record.

Canadian Practitioner.

St. Petersburger Medic. Wœhenschrift.

Aerzfliches Vereinoblatt fur Deutschland.

Pennsylvania Hospital for the Insane, Report for 1882.

Transactions of the Medical Society of West Virginia, 1883.

MISCELLANEOUS.

THE seventh annual meeting of the American Dermatological Association will be held at the Sagamore House, Green Island, Lake George, August 29, 30 and 31. The following papers are announced: Dr. Piffard: Treatment of Acne. Dr. Hyde: A Study of the Coincidences of Syphilitic and Non-Syphilitic Affections of the Skin. Dr. Graham: General Exfoliative Dermatitis. Dr. Stelwagon: Impetigo Contagiosa. Dr. Robinson: Alopecia Areata. Dr. Duhring: 1. On the Value of a Lotion of Sulphide of Zinc in the Treatment of Lupus Erythematosus. 2. Report of a Case of Ainhum with Microscopic Examination. Dr. Atkinson: A Case of Multiple Cachectic Ulceration. Dr. Sherwell: 1. Pseudo-Psoriasis of the Palm. 2. Malignant Papillary Dermatitis. Dr. Bulkley: 1. A Hitherto Undescribed Vegetable Parasite Found on the Human Skin. 2. A Clinical and Experimental Study of Pruritus. Dr. Van Harlingen: Experiments in the Use of Naphthol. Dr. Fox: A Trip to Tracadie. The President, Dr. Taylor: 1. Peculiar Changes Observed in the Non-Ulcerating Tubercular Syphilide. 2. Certain Appearances of the Initial Lesion of Syphilis at its Beginning.

THE NUMBER OF MEDICAL PRACTITIONERS IN PARIS.—The medical profession in Paris comprises 1,915 doctors of medicine, 12 doctors of surgery, 83 health officers, 43 foreign medical men, 1,500 midwifes, 845 apothecaries and 95 veterinary surgeons. Among the doctors of medicine are two ladies, one French and the other Russian. The population of Paris is estimated at 2,239,928. The senior medical man is M. Segalas, who was born in 1792 and took his degree in 1817; next in seniority comes Dr. Ricord, the celebrated syphilographer, who was born in 1800, and took his degree in 1826. The oldest midwife obtained her diploma in 1815. She declared that during the sixty-eight years she has been in practice she had, on an average, 100 births a year, so that she has during that period brought 6,800 children into the world.—Paris Correspondent *Lancet*, June 30, 1883.

UPON the affidavits of Drs. Alfred Stille and Hayes Agnew, the court has granted a preliminary injunction restraining the circulation and sale of a book entitled "An Epitome of Medicine and Surgery," published by S. M. Miller, M. D., of Philadelphia. Drs. Stille and Agnew claim that their lectures have been stolen and published without authority.

DR. PITMAN, Registrar of the Royal College of Physicians, London, Mr. Saunders, Surgeon Dentist to the Queen, and Mr. Porter, of Dublin, one of the Surgeons to the Queen in Ireland, have been knighted. Dr. Banks, of Dublin, has declined.

DR. ST. JOHN ROOSA, of New York, and Dr. Blake, of Boston, have been added to the Committee on Organization of the Third International Otological Congress, which is to meet at Basle, Switzerland, in the first week of September.

THE sixteenth annual meeting of the Canada Medical Association will take place at Kingston from the 5th to the 7th of September. Dr. Mullin, of Hamilton, is the President.

NECROLOGICAL.

CURTIS, JOSIAH, M.D.; born at Wethersfield, Conn., April 30, 1816; died at London, England, August 1, 1883, while traveling. He was fitted for college at the Academy at Monson, Mass., and received his M.A. degree from Yale College. He taught school for a time, and was principal of the Salem (N. J.) County Academy. He taught also in Philadelphia, and while there studied medicine and graduated M.D. at Jefferson Medical College in 1843. He settled to practice in Lowell, Mass. In 1849 he removed to Boston. Dr. Curtis made the study of the sanitary management of large cities a prominent branch of his profession, and twice visited Europe in pursuit of the subject. He assisted in the preparation for publication the mortality statistics of the U. S. census of 1860. In 1861 he was Secretary of the Boston Sanitary Association. He served as brigade surgeon in the late war; served in various stations. After being mustered out in 1865, with a brevet promotion, he took up his residence in Knoxville, Tenn. In 1872 he accompanied the U. S. Geological Survey as Surgeon, Microscopist and Naturalist, traversing portions of the Rocky Mountains, including the Yellowstone Lake and its many geysers. In 1873 he became chief medical officer to the U. S. Indian Service, which he organized and placed on a useful footing. He resided for many years in Washington, where he is well and favorably known. He was a member of the Massachusetts Medical Society, and of the American Medical Association since 1847, and of a number of other scientific and literary associations. Dr. Curtis was an industrious and faithful worker in various fields of scientific research, and a contributor to medical and other periodical literature. He was the discoverer of collodion, or liquid gun-cotton.

J. M. T.

JEROME, JAMES H., died in the seventy-first year of his age, in the city of Saganaw, State of Michigan, August 8, 1883, of inflammation of the liver, after an illness of about three months.

Funeral services were held at his late residence on the following day, when his remains, accompanied by his family, were borne away to his family burying-place in Trumansburg, New York.

Dr. Jerome was a man of vigorous intellect, keen perceptions, retentive memory and independent character, and his manners of mingled courtesy and dignity marked him as old-school gentleman, alive to the issues and important questions of the day and age in which he lived.

He helped to organize, in 1866, the Michigan State Medical Society, did much to shape its policy, was twice elected its president, and did as much as any other member to promote its interests.

His high sense of honor, especially among his professional brethren, and his stout opposition to every infringement of the code of medical ethics, both in the Society and out of it, made him an enemy to pretenders, of every description.

His domestic relations were characterized by deep affection, and his genial smile was the sunlight of the household, where his loss is most keenly felt. His intercourse among his friends was of the most cordial character, his hospitality ample and his friendship deep and lasting. Quick to oppose what he thought wrong in a friend, as in others, he reminds us of the proverb:

"Faithful are the wounds of a friend, but the kisses of an enemy are deceitful."

His funeral was attended by about twenty-five physicians from different parts of the State, who came hither to pay their last tribute of respect, and to assist in perpetuating his memory.

Following the funeral services, the physicians in attendance met at the parlors of the Taylor House in Saginaw, and organized by calling Dr. H. Tupper to the chair and choosing Dr. Geo. E. Ranny secretary. The life and character of Dr. Jas. H. Jerome was then reviewed by a number of speakers who had known him best.

On motion of Dr. Ranney, the chairman was requested to appoint a committee of three, making Dr. C. V. Tyler chairman, whose duty it should be to present, in the form of resolutions, the sense of the meeting concerning the life and character of the deceased, and furnish a copy of the same to the family, also copies to the local press and to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. The motion prevailed, and the chairman appointed such committee; which committee has, so far as practicable, embodied the views and feelings of those present in the following preamble and resolutions:

WHEREAS, We, professionai associates of the late Dr. Jas. H. Jerome, assembled to do our last sacred duty to his remains, feel, intermingling with our sorrow and regret, great admiration for his brave and true qualities of head and heart, his loyalty to the interests of his profession, his animated conversation, his vigor in debate, his joyful and happy countenance, his cordial salutation and welcome which none of us can ever forget, therefore,

Resolved, That while we bow with submission to the rulings of a Divine hand in removing from us a beloved member, our hearts are deeply stricken, and we will hold his character in grateful remembrance and endeavor to emulate his example.

Resolved, That our sympathy and condolence are herewith tendered his sorrowing family in thir great bereavement.

C. V. TYLER,
GEO. E. RANNEY, } Committee.
HENRY B. BAKER,

The meeting then adjourned.

GEO. E. RANNEY, *Secretary*.

COX, CRISTOPHER C., M.D., of Maryland, was born in Baltimore, Md., August 16th, 1816, died in Washington, D. C., November 25th, 1882. He was the son of Luther J. Cox and Maria (Keener) Cox. He entered Yale College in 1883 and graduated in 1835. Medicine was his preference as a profession, and after reading and attending three full courses at the Washington Medical College, in Baltimore, he received the degree of M. D. Shortly after graduating he

settled to practice in Baltimore, Md., but in 1843 removed to Easton Talbot. In 1848 he was appointed Professor of Medical Jurisprudence and Institutes of Medicine in the Philadelphia College of Medicine, but resigned after delivering one course of lectures. Dr. Cox was an accomplished scholar, an eloquent public speaker, with a fondness for public life and position. In 1854 he was nominated for Congress in the First District of Maryland, but was not elected. On the breaking out of the war between the States he took part with the general government, and was appointed a surgeon in 1861. In August 1862 he was made Medical Purveyor of the Middle Military Department. In 1864 he was elected Lieutenant-Govenor of Maryland. In 1868 he was appointed Commissioner of Pensions, and the following year was elected to the chair of Medical Jurisprudence and Hygiene in the Medical Department of the University of Georgetown College. In 1871 Dr. Cox was, on the reorganization of the Health Department of the District of Columbia, appointed on the Board of Health, and was by the Board chosen for several terms their President. Dr. Cox was a member of the Medical and Surgical Faculty of Maryland from the period he began practice. He became a member of the American Medical Association in 1848, was appointed chairman of various important committees, and for years made admirable reports on necrology. He was Vice President in 1863. He was active and influential in the organization of the American Public Health Association. He was a Secretary of the Medical Society of the District of Columbia, and a number of the medical associations of the District, the Historical Society of Maryland, and of many scientific and literary societies. He was a chaste and beautiful writer, and has contributed some beautiful verses that will hold their place in literature. In 1879 Dr. Cox was appointed chief executive officer to superintend the United States Department in the International Exhibition in Australia. He was well fitted for this responsible position by his familiarity with the duties and requirements, as he had served acceptibly in an official position at the Centennial Industrial Exhibition at Philadelphia in 1876. But his health broke down and he returned to the United States, but did not regain his health. He was tenderly cared for by his wife and daughters. His remains were taken to Eastern Maryland where they are interred. J. M. T.

COOPER, GEORGE F., M.D., of Americus, Georgia. Was born in Wilkes county, Georgia, July 31, 1825; died at Americus, Georgia, December 3, 1882. He studied medicine in Harris county, Georgia, took his first course of lectures in Transylvania University, and graduated in Jefferson Medical College, Philadelphia, in 1845. In the winter of 1847–8 he took a third course in Philadelphia, and spent the winter of 1850–1 in Charity Hospital, New Orleans. He practiced medicine in Perry, in Savannah, and afterwards in Americus. In 1856 he entered the Baptist ministry. In 1861 he entered the Confederate service as surgeon of Lawton's brigade, in which he remained to the close of the war. In 1846 he married Miss Cornelia I. Stacey, of Houston county, Georgia, and in 1878 he was a second time married to Miss Carrie M., daughter of Prof. A. C. Kendrick, D.D., of the university at Rochester, N. Y. He leaves a widow, six children, and four grandchildren.

Dr. Cooper was a man of prominence in Georgia, not only as a physician but also as a minister of the gospel, having served churches at Lebanon, at Dalton, at Albany, and at Americus. During his ministerial career he continued in practice of medicine, and devoted the later years of his life wholly to medicine. ROBERT BATTEY, M.D., of Georgia.

CARMICHAEL, GEORGE FRENCH, M.D., was born in Fredericksburg, Va., March 9, 1806; graduated in medicine April 7, 1828, at the University of Maryland; died at Fredericksburg, Va., Aug. 27, 1882, aged 76 years. Dr. Carmichael was a leading physician in Fredericksburg for upwards of fifty years, where he spent his life, with the exception of three years during the civil war when he was a surgeon in the Confederate army, and stationed at Danville, Va., in charge of a large hospital. He had a most exalted appreciation of the dignity and honor of his profession, and no consideration could induce him to swerve from what he believed to be the strict line of duty. No man ever enjoyed more entirely the love and respect of all classes of the community in which for so many years he had been a public benefactor than did Dr. Carmichael. No kinder or more generous heart ever beat in human bosom. His unselfish nature, particularly, fitted him for the calling which, of all others, draws for the best and noblest qualities of our nature, and his life exemplified the character of a Christian gentleman.

F. D. CUNNINGHAM, of Virginia.

HAYNES, TIMOTHY, M.D., Concord, N. H., was born in Alexandria, N. H., September 5th, 1808, died of paralysis at his residence in Concord, May 28th, 1883. He was the son of David and Rebecca Haynes. Having fitted himself for the study of medicine he pursued his professional studies under Dr. Mussey, of Hanover. For some time he served as Demonstrator of Anatony at Dartmouth College. He attended his last course of lectures at the Jefferson Medical College, in Philadelphia, where he graduated as M.D. in 1836. He at once settled to practice in Concord and speedily acquired a reputation for skill in surgery. He built up a fine anatomical museum, which was destroyed in the great fire of 1851. During his earlier professional life he instructed many students. In 1849 he was a delegate from the Merimack Pathological Society to the American Medical Association. He made a study of the claims of the water cure treatment of deseases, and gave some encouragement to the establishment of an institution for the special treatment by this method. Dr. Haynes attended closely to practice, and held a prominent position in the profession. About 1843 he was united in marriage to Laura Brackett, of Littleton, who survives him, as do three daughters. J. M. T.